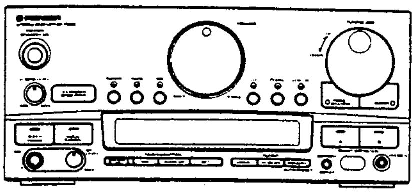
PIONEER

The Art of Entertainment

Service Manual



ORDER NO.
ARP2398

STERO RECEIVER

SX-P920
SX-P720

SX – P920 AND SX – P720 HAVE THE FOLLOWING :

Type	Model		Power Requirement	Remarks
	SX – P920	SX – P720		
HE	○	○	AC220V – 230V, 240V (Switchable)*	
HB	○	○	AC220V – 230V, 240V (Switchable)*	
HEWZI	○	○	AC220V – 230V, 240V (Switchable)*	
SD	○	○	AC110V, 120V – 127V, 220V, 240V (Switchable)	
KUC	—	○	AC120V only	

* Change the connection of the power transformer's primary wiring.

- This manual is applicable to SX – P920/HE, HB, HEWZI and SX – P720/HE, HB, HEWZI.
- As to the SX – P920/HB, HEWZI and SX – P720/HB, HEWZI, refer to page 54.
- As to the other types, refer to the applicable service manuals.
- These products are component of systems. As to the system composition, refer to the system manual (s).
- Each of these products does not function properly when independent ; to avoid malfunctions, be sure to connect it to the prescribed system component (s), otherwise damage may result.
- Ce manuel pour le service comprend les explications de réglage en français.
- Este manual de servicio trata del método ajuste escrito en español.

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This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

1. SAFETY INFORMATION

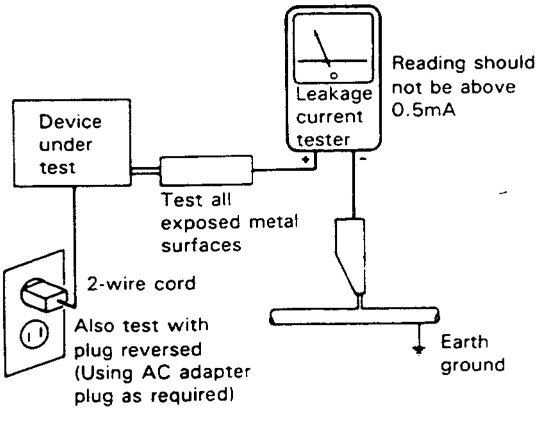
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Device under test
Leakage current tester
Reading should not be above 0.5mA
Test all exposed metal surfaces
2-wire cord
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:

- *The parts with an encircled number are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

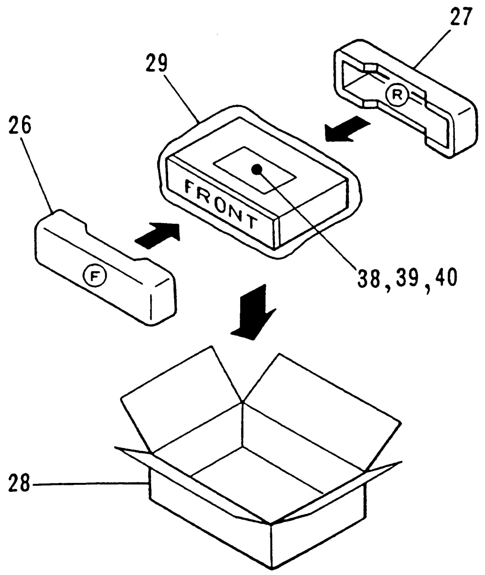
2.1 PARTS LIST OF SX – P920/HE

Mark	No.	Description	Parts No.
	1	KNOB (VOLUME)	AAB1249
	2	KNOB (JOG)	AAB1251
	3	KNOB (P.BASS LEVEL, MIC LEVEL)	AAB1253
	4	FUNCTION BUTTON (TUNER, TAPE, CD, LD, PHONO, VCR/DAT)	AAD2067
	5	BAND BUTTON (FREQ. STATION, BAND)	AAD2069
	6	POWER BUTTON	AAD2070
	7	P-BASS BUTTON (2) ASSY (SUPER P. BASS, VOCAL CANCEL)	AAD2074
	8	AI BUTTON ASSY (SMART OPERATION, MEMORY)	AAD2080
	9	FUNCTION LENS	AAK2206
	10	FILTER (REMOCON)	AAK2208
	11	DECORATIVE PLATE (TUNER)	AAK2255
◉	12	MAIN ASSEMBLY	AWZ3719
◉	13	SUB. POWER ASSEMBLY	AWZ3727
	14	SCREW	ABA–258
	15	SCREW (STEEL)	ABA1095
	16	NUT	ABN1016
⚠	17	AC POWER CORD	ADG1019
	18	RUBBER SHEET	AEB1111
	19	BINDER	AEC–826
	20	STRAIN RELIEF	AEC–882
	21	SPACER	AEC1236
	22	PCB SPACER (3×8)	AEC1371
	23	PCB SPACER (3×12)	AEC1372
	24	....	
◉	25	FR. AMP ASSEMBLY	AWZ3734
	26	FRONT PAD	AHA1453
	27	REAR PAD	AHA1454
	28	PACKING CASE	AHD2179
	29	PACKING SHEET	AHG1093
	30	MIC ASSEMBLY	AWZ3736
	31	FRONT PANEL ASSY	AMB1874
	32	PCB MOULD	AMR2115
	33	CHASSIS	ANA1155
	34	REAR PANEL	ANC1777
	35	BONNET (FE)	ANE1309
	36	HEAT SINK	ANH1352
	37	SHIELD BOX	ANK1179
	38	OPERATING INSTRUCTIONS (German, Italian)	ARC1305
	39	OPERATING INSTRUCTIONS (English, French, German, Italian)	ARC1306
	40	OPERATING INSTRUCTIONS (English, French)	ARE1211
	41	HEAD. P ASSEMBLY	AWZ3737
	42	CONNECT ASSEMBLY	AWZ3739
	43	TUNER ASSEMBLY	AWE1226
◉	44	DISPLAY ASSEMBLY	AWZ3705
◉	45	VR ASSEMBLY	AWZ3708
	46	DC MOTOR	AXM1013
	47	SCREW	BBZ30P060FZK
	48	SCREW	BBZ30P080FZK
	49	SCREW	BBZ40P060FZK
	50	SCREW	BPZ26P080FMC
	51	NUT	NK90FUC
	52	SCREW	PPZ50P100FZK
	53	FOOT (RUBBER)	REC–434
	54	SCREW	ABA1024
	55	SCREW	VBZ30P160FMC
⚠	56	FUSE (T1.6A/250V, FU51)	AEK–510
	57	FFC (J27)	ADD1100
⚠	58	POWER TRANSFORMER (T1)	ATS1378
◉	59	REGULATOR ASSEMBLY	AWZ4009

2.2 PARTS LIST OF SX – P720/HE

Mark	No.	Description	Parts No.
	1	KNOB (VOLUME)	AAB1249
	2	KNOB (JOG)	AAB1251
	3	KNOB (P.BASS LEVEL)	AAB1253
	4	FUNCTION BUTTON (TUNER, TAPE, CD, LD, PHONO, VCR/DAT)	AAD2067
	5	BAND BUTTON (FREQ. STATION, BAND)	AAD2069
	6	POWER BUTTON	AAD2070
	7	P-BASS BUTTON (1) ASSY (SUPER P. BASS)	AAD2076
	8	AI BUTTON ASSY (SMART OPERATION, MEMORY)	AAD2080
	9	FUNCTION LENS	AAK2206
	10	FILTER (REMOCON)	AAK2208
	11	DECORATIVE PLATE (TUNER)	AAK2255
◉	12	MAIN ASSEMBLY	AWZ3714
◉	13	SUB. POWER ASSEMBLY	AWZ3722
	14	SCREW	ABA–258
	15	SCREW (STEEL)	ABA1095
	16	NUT	ABN1016
⚠	17	AC POWER CORD	ADG1019
	18	RUBBER SHEET	AEB1111
	19	BINDER	AEC–826
	20	STRAIN RELIEF	AEC–882
	21	SPACER	AEC1236
	22	PCB SPACER (3×8)	AEC1371
	23	PCB SPACER (3×12)	AEC1372
	24	....	
◉	25	FR. AMP ASSEMBLY	AWZ3730
	26	FRONT PAD	AHA1453
	27	REAR PAD	AHA1454
	28	PACKING CASE	AHD2178
	29	PACKING SHEET	AHG1093
	30	....	
	31	FRONT PANEL ASSY	AMB1876
	32	PCB MOULD	AMR2115
	33	CHASSIS	ANA1155
	34	REAR PANEL	ANC1778
	35	BONNET (FE)	ANE1309
	36	HEAT SINK	ANH1352
	37	SHIELD BOX	ANK1179
	38	OPERATING INSTRUCTIONS (German, Italian)	ARC1305
	39	OPERATING INSTRUCTIONS (English, French, German, Italian)	ARC1306
	40	OPERATING INSTRUCTIONS (English, French)	ARE1211
	41	HEAD. P ASSEMBLY	AWZ3737
	42	CONNECT ASSEMBLY	AWZ3739
	43	TUNER ASSEMBLY	AWE1226
◉	44	DISPLAY ASSEMBLY	AWZ3701
◉	45	VR ASSEMBLY	AWZ3708
	46	DC MOTOR	AXM1013
	47	SCREW	BBZ30P060FZK
	48	SCREW	BBZ30P080FZK
	49	SCREW	BBZ40P060FZK
	50	SCREW	BPZ26P080FMC
	51	NUT	NK90FUC
	52	SCREW	PPZ50P100FZK
	53	FOOT (RUBBER)	REC–434
	54	SCREW	ABA1024
	55	SCREW	VBZ30P160FMC
⚠	56	FUSE (T1.25A/250V, FU51)	AEK–509
	57	FFC (J27)	ADD1100
⚠	58	POWER TRANSFORMER (T1)	ATS1374
◉	59	REGULATOR ASSEMBLY	AWZ4009

● PACKING (SX – P920/HE & SX – P720/HE)



Parts No.

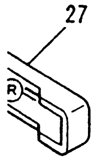
AWZ3737
AWZ3739
AWE1226
AWZ3701
AWZ3708

AXM1013
BBZ30P060FZK
BBZ30P080FZK
BBZ40P060FZK
BPZ26P080FMC

NK90FUC
PPZ50P100FZK
REC-434
ABA1024
VBZ30P160FMC

AEK-509
ADD1100
) ATS1374
AWZ4009

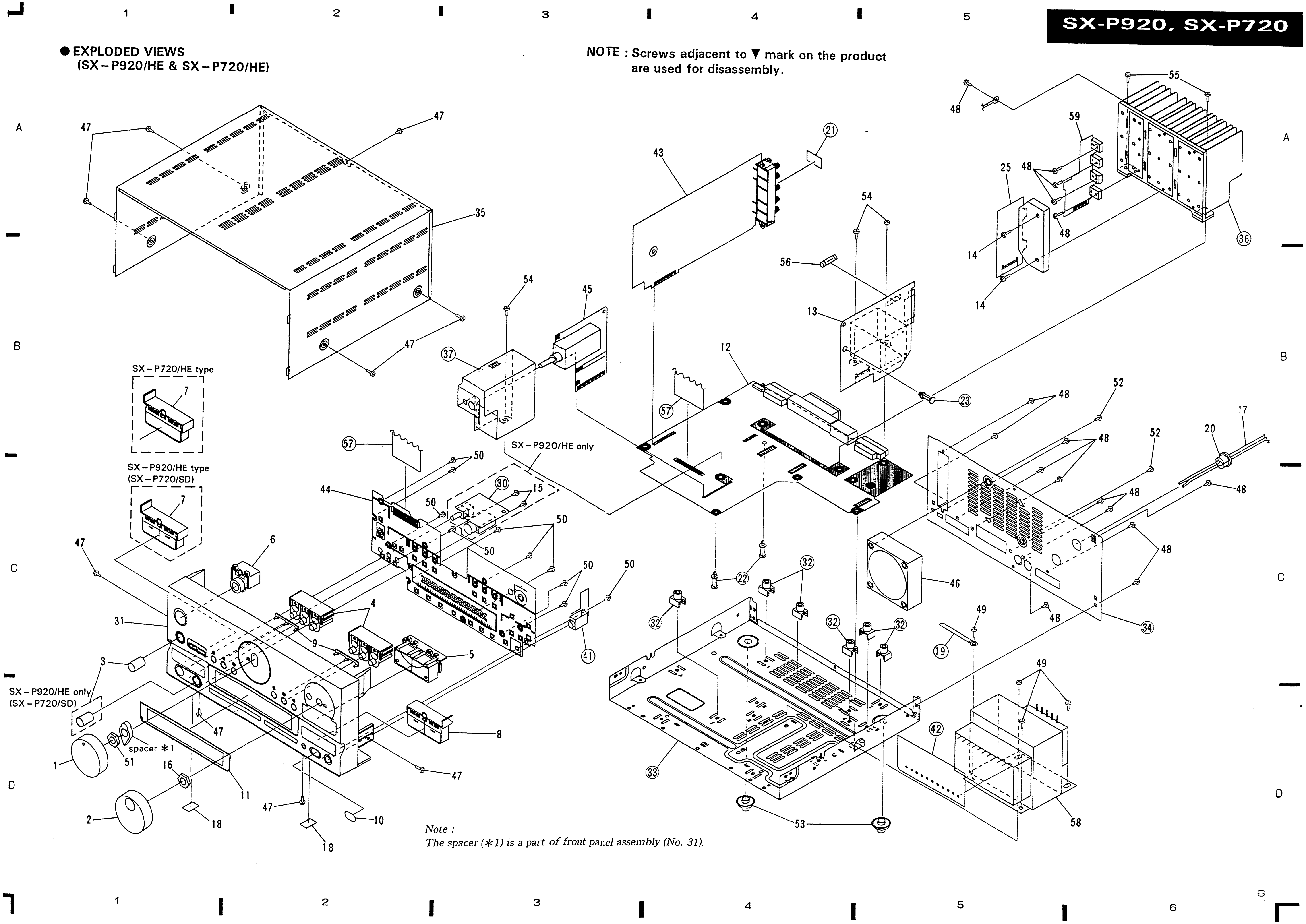
(-P720/HE)



39,40

● EXPLODED VIEWS (SX-P920/HE & SX-P720/HE)

NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

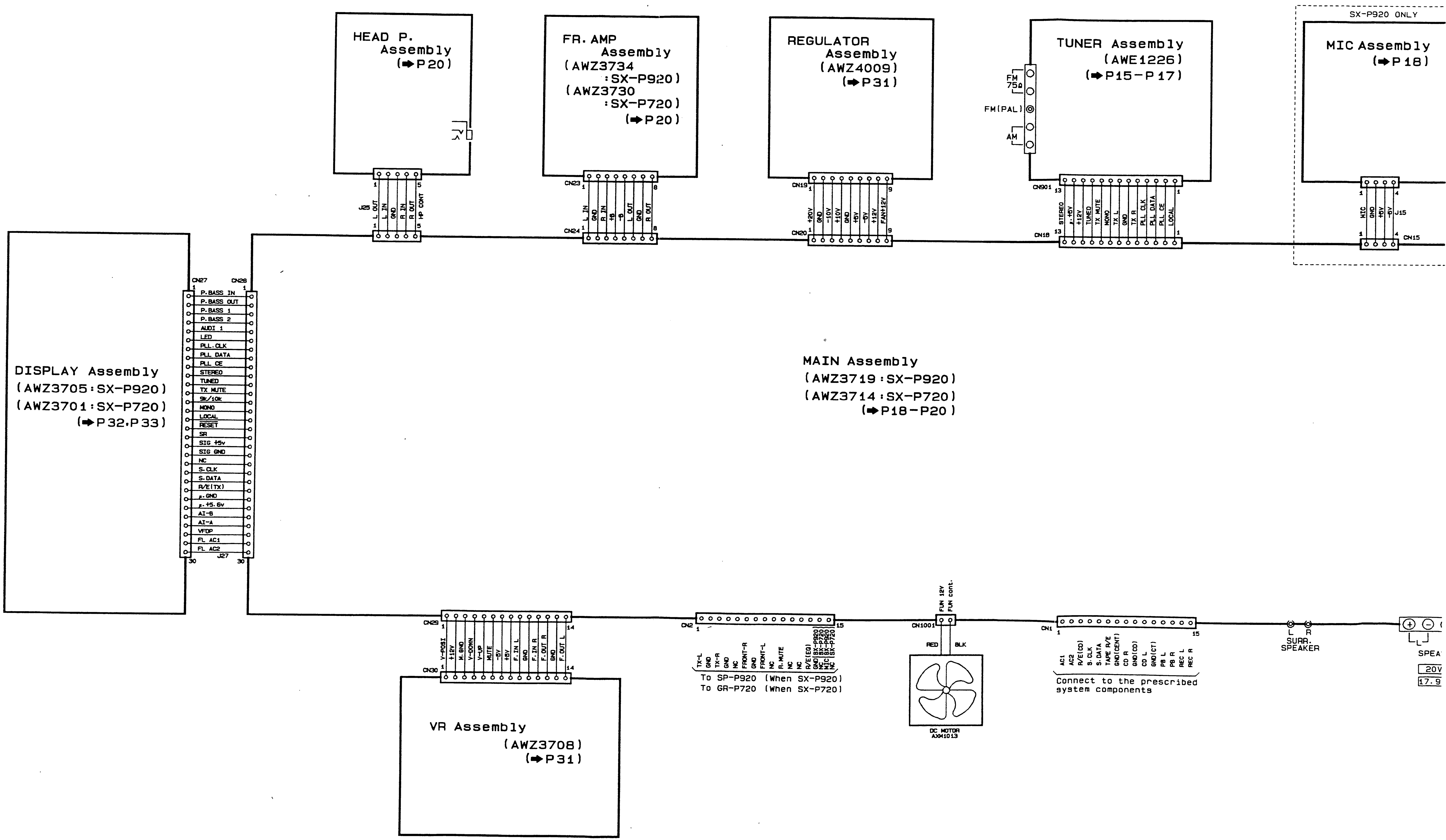

1
2
3
4
5
6
A
B
C
D
47
35
54
45
37
43
21
56
13
12
57
23
55
48
59
25
14
36
SX-P720/HE type
7
SX-P920/HE type
(SX-P720/SD)
50
SX-P920/HE only
30
15
44
6
4
9
5
31
3
SX-P920/HE only
(SX-P720/SD)
spacer ∗1
1
51
16
11
2
18
10
8
41
22
32
33
53
46
34
49
19
42
58
52
17
20

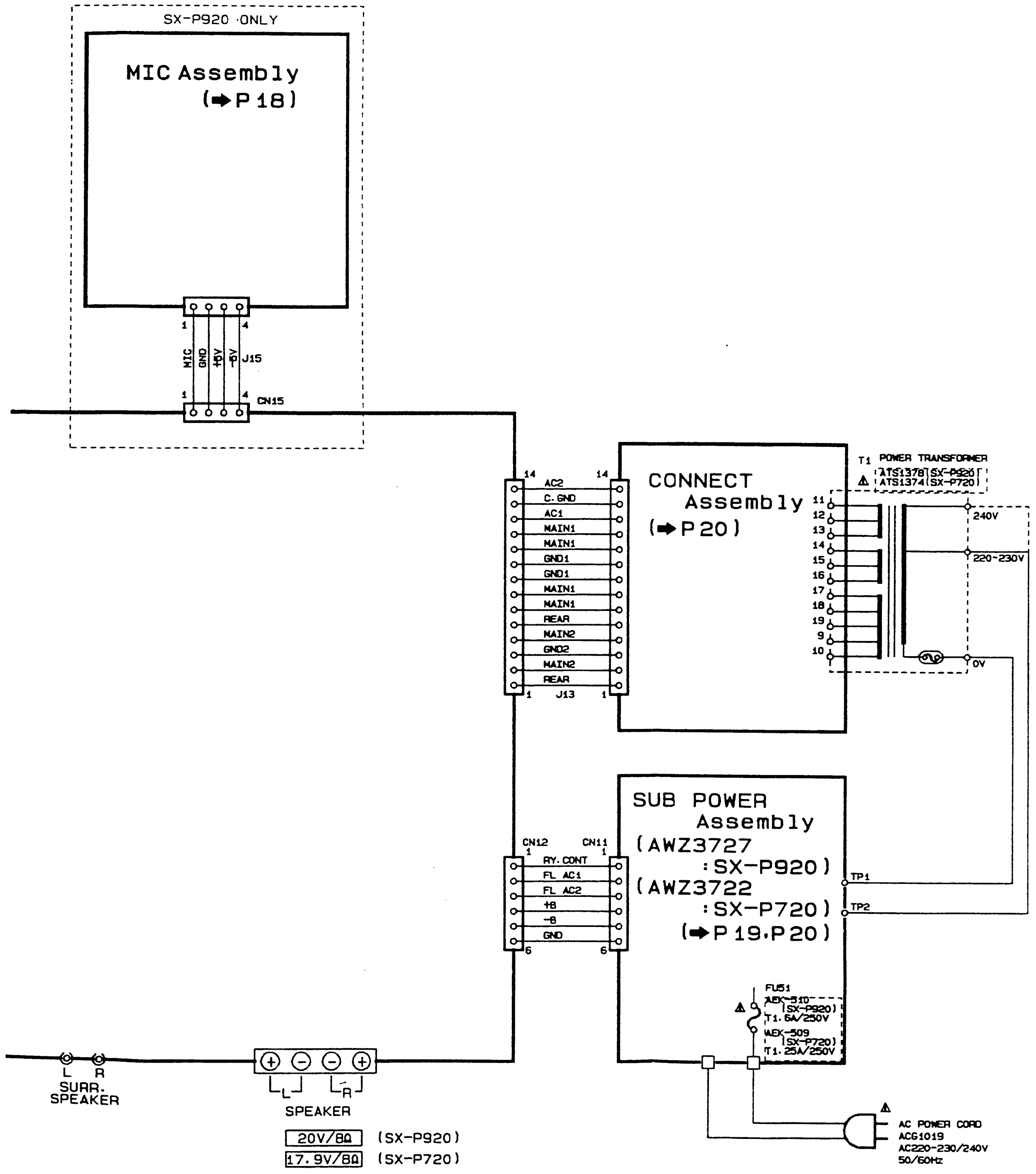
Note :
The spacer (∗1) is a part of front panel assembly (No. 31).

3. SCHEMATIC DIAGRAMS AND PCB CONNECTION DIAGRAMS

(SX–P920/HE & SX–P720/HE)

3.1 OVER ALL SCHEMATIC DIAGRAM


HEAD P. Assembly (➡P20)
1 L OUT L IN GND R IN R OUT HP CONT 5
J25
FR. AMP Assembly (AWZ3734 : SX-P920) (AWZ3730 : SX-P720) (➡P20)
CN23 CN24
L IN GND R IN +B -B L OUT GND R OUT
REGULATOR Assembly (AWZ4009) (➡P31)
CN19 CN20
+20V GND -10V +10V GND +5V -5V +12V FAN+12V
TUNER Assembly (AWE1226) (➡P15–P17)
FM 75Ω
FM(PAL)
AM
CN901 CN18
STEREO µ.+5V +12V TUNED TX MUTE MONO TX L GND TX R PLL CLK PLL DATA PLL CE LOCAL
SX-P920 ONLY
MIC Assembly (➡P18)
MIC GND +5V -5V
J15 CN15
DISPLAY Assembly (AWZ3705 : SX-P920) (AWZ3701 : SX-P720) (➡P32,P33)
CN27 CN28 J27
P.BASS IN
P.BASS OUT
P.BASS 1
P.BASS 2
AUDI 1
LED
PLL.CLK
PLL DATA
PLL CE
STEREO
TUNED
TX MUTE
9k/10k
MONO
LOCAL
RESET
SR
SIG +5v
SIG GND
NC
S.CLK
S.DATA
R/E(TX)
µ.GND
µ.+5.6v
AI-B
AI-A
VFDP
FL AC1
FL AC2
MAIN Assembly (AWZ3719 : SX-P920) (AWZ3714 : SX-P720) (➡P18–P20)
CN29 CN30
V-POSI +12V M.GND V-DOWN V-UP MUTE -5V +5V F.IN L GND F.IN R F.OUT R GND F.OUT L
VR Assembly (AWZ3708) (➡P31)
CN2
TX-L GND TX-R GND NC FRONT-R GND FRONT-L NC R.MUTE NC NC R/E(EQ) GND(SX-P920) NC(SX-P720) MIC(SX-P920) NC(SX-P720)
To SP-P920 (When SX-P920)
To GR-P720 (When SX-P720)
CN1001
FUN 12V FUN cont.
RED BLK
DC MOTOR AXM1013
CN1
AC1 AC2 R/E(CD) S.CLK S.DATA TAPE R/E GND(CENT) CD R GND(CD) CD L GND(CT) PB L PB R REC L REC R
Connect to the prescribed system components
L R
SURR. SPEAKER
SPEA
20V
17.9


SX-P920 ONLY
MIC Assembly
(➡P18)
1
4
MIC
GND
+5V
-5V
J15
1
4
CN15
14
14
AC2
C.GND
AC1
MAIN1
MAIN1
GND1
GND1
MAIN1
MAIN1
REAR
MAIN2
GND2
MAIN2
REAR
1
J13
1
CONNECT Assembly
(➡P20)
11
12
13
14
15
16
17
18
19
9
10
T1 POWER TRANSFORMER
ATS1378 (SX-P920)
ATS1374 (SX-P720)
240V
220-230V
0V
SUB POWER Assembly
(AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)
(➡P19, P20)
CN12
CN11
1
1
RY. CONT
FL AC1
FL AC2
+B
-B
GND
6
6
TP1
TP2
FU51
AEK-510 (SX-P920) T1.6A/250V
AEK-509 (SX-P720) T1.25A/250V
AC POWER CORD
ACG1019
AC220-230/240V
50/60Hz
L
R
SURR. SPEAKER
L
R
SPEAKER
20V/8Ω (SX-P920)
17.9V/8Ω (SX-P720)

1. RESISTORS:
Indicated in Ω, ¼W, ⅛W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M); ±20% tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:
▭ : Signal voltage at (SX-P920 : 50W + 50W, SX-P720 : 40W + 40W, 8Ω) output (1kHz)
▭ : DC voltage (V) at no input signal
[a] and [b] in the circuit diagram describe the following :
a = SX-P920
b = SX-P720
None = SX-P920 and SX-P720
Value in ( ) is DC voltage at rated power.
⇦ mA : DC current at no input signal
mV : Signal voltage at FM 1kHz ±75kHz

4. OTHERS:
➡ : Signal route.
⊘ : Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.
▼ (RED) : TEST POINT
This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCHES (The underline indicates the switch position)

DISPLAY Assembly

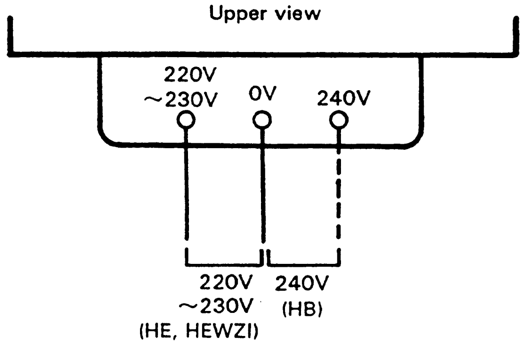
S701	LD
S702	VCR/DAT
S703	PHONO
S704	TAPE
S705	TUNER
S706	CD
S709	POWER STANDBY/ON
S710	AI. A
S711	SUPER P. BASS (SX-P920 ONLY)
S712	AI. B
S713	AI. MEMORY
S714	AUDITION (SX-P920 ONLY)
S715	SUPER P. BASS (SX-P720 ONLY)
S1001	BAND
S1002	M. SCAN
S1003	CLOCK ADJ
S1005	MEMORY
S1006	SET
S1008	LOCAL
S1009	WAKE UP
S1010	FREQ/STATION
S1011	REC
S1030	TUNING JOG

Line Voltage Selection (For HE, HB and HEWZI types)

Line voltage can be changed with the following steps.

1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection with the power transformer (T1) primary taps.

Power Transformer (T1)
Upper view

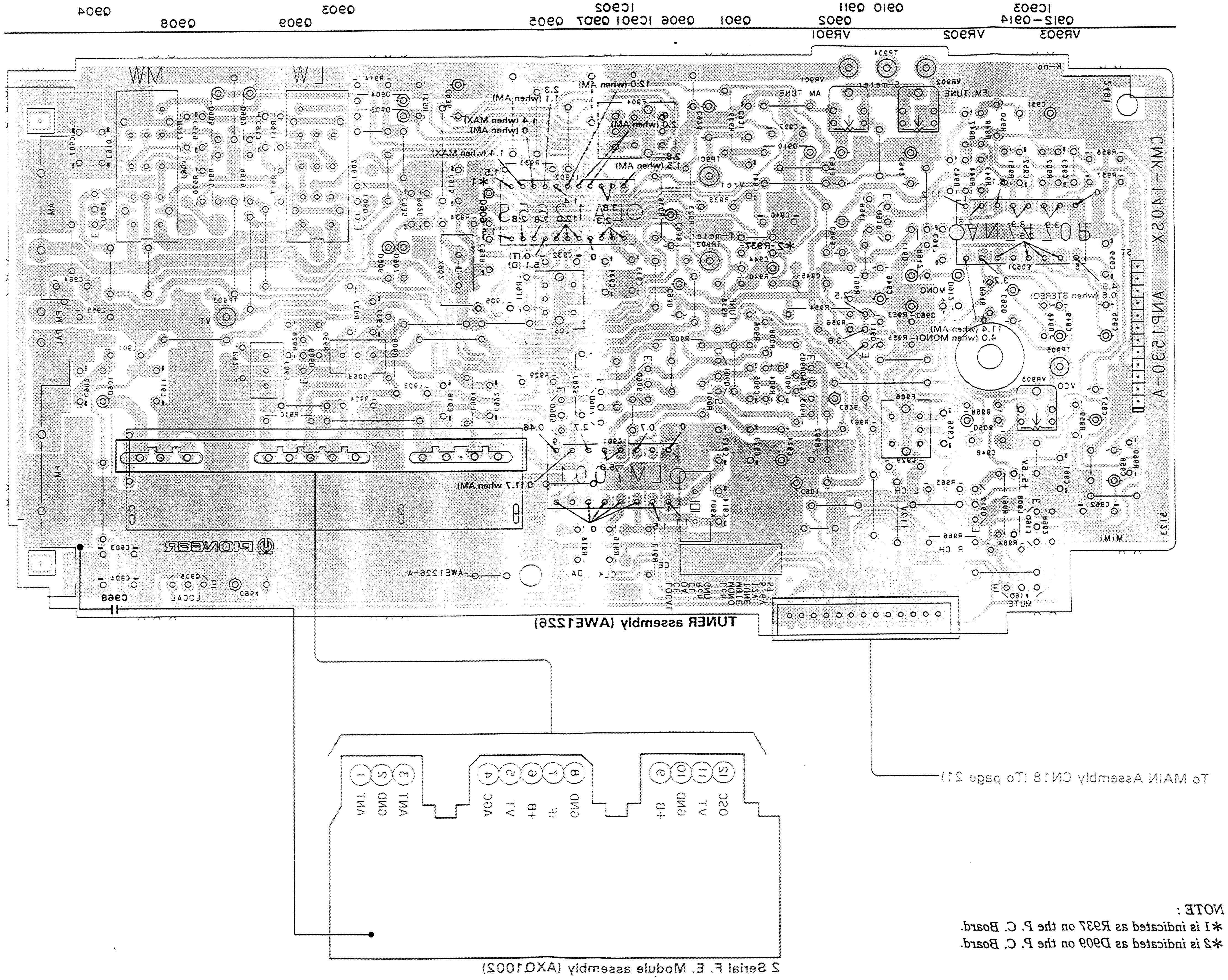

220V ~230V
0V
240V
220V ~230V
(HE, HEWZI)
240V
(HB)

4. Stick the line voltage label on the rear panel.

Part No.	Description
AAX-193	220V label
AAX-192	240V label

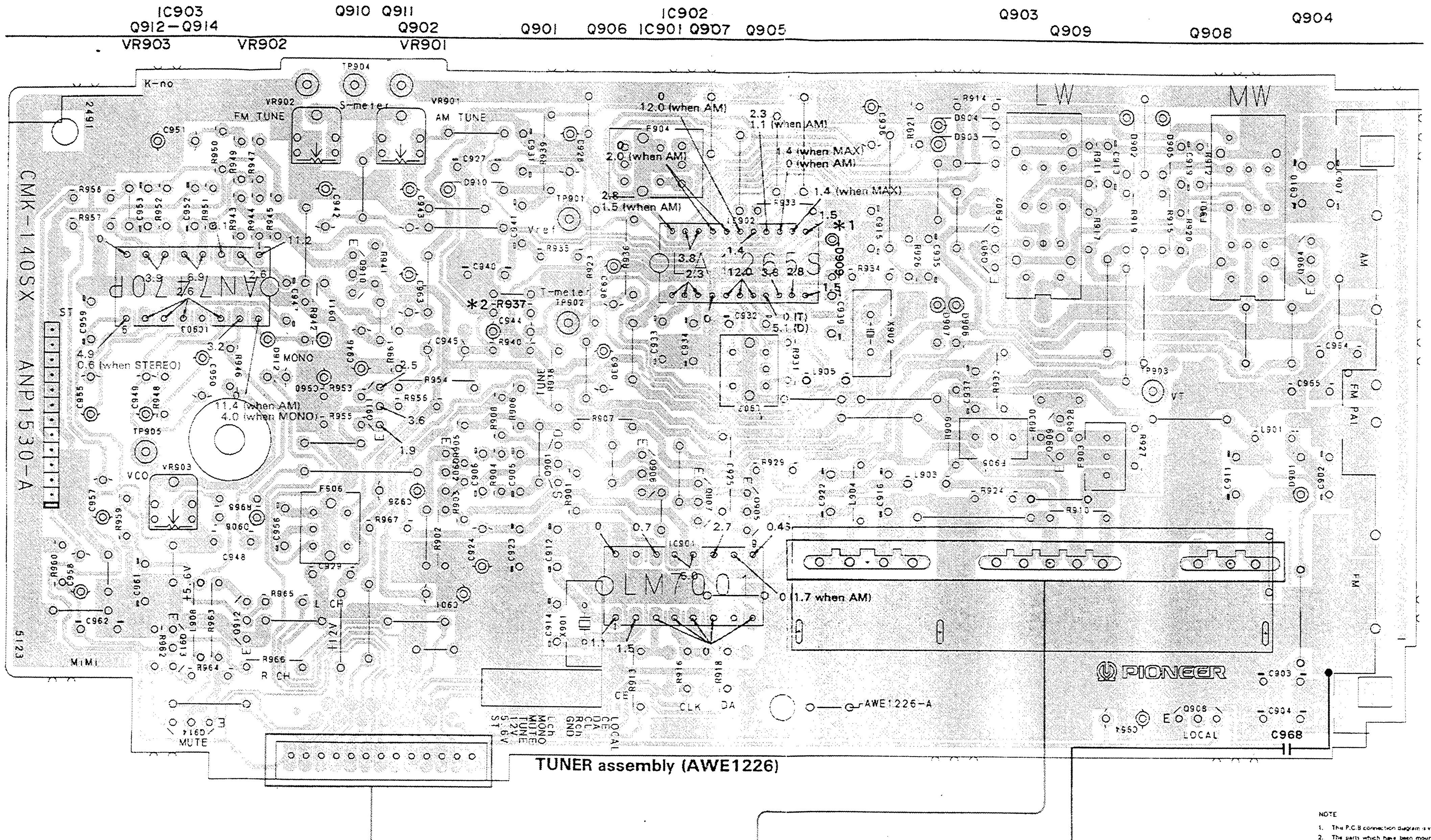
3.2 TUNER ASSEMBLY

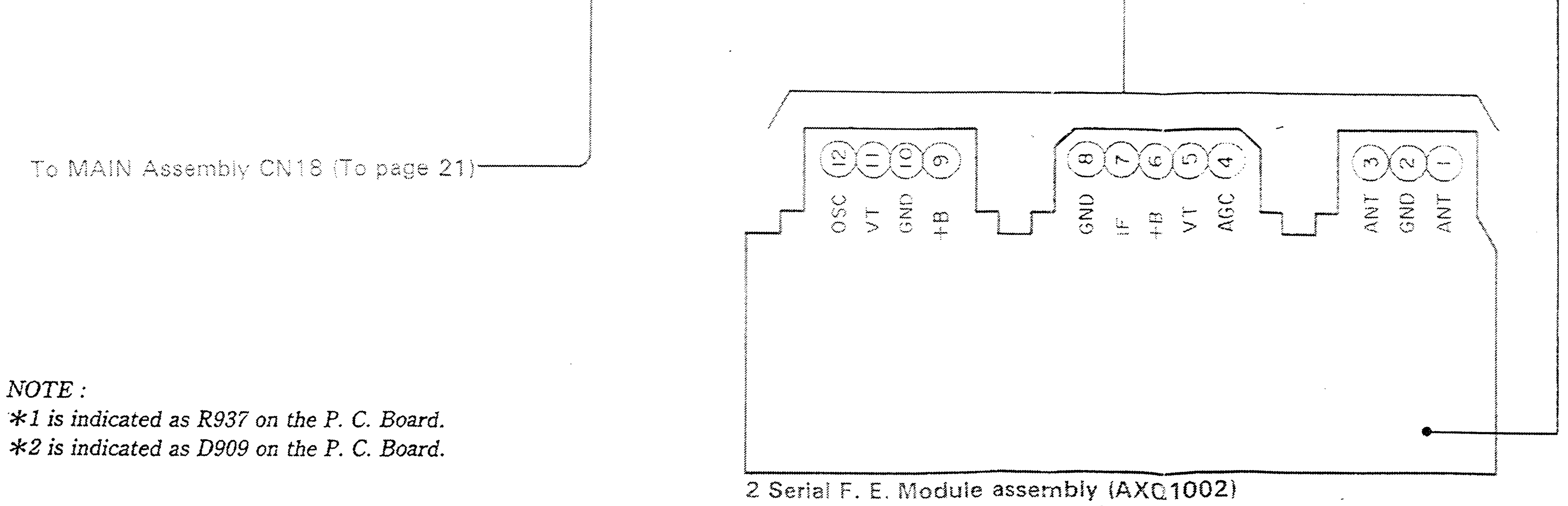
This P. C. B. connection diagram is viewed from the foil side.


Q904
Q908
Q909
Q903
IC902
Q905
Q907
IC901
Q906
Q901
Q902
VR901
Q910
Q911
VR902
IC903
Q912–Q914
VR903
MW
LW
AM TUNE
FM TUNE
S-meter
T-meter
MONO
VCO
GMK-1405X
ANP1530-A
PIONEER
AWE1226-A
LOCAL
MUTE
L CH
R CH
TUNER assembly (AWE1226)
ANT
GND
ANT
AGC
A.T.
+B
IF
GND
+B
GND
A.T.
OSC
2 Serial F. E. Module assembly (AXQ1002)
To MAIN Assembly CN18 (To page 21)

NOTE :
*1 is indicated as R937 on the P. C. Board.
*2 is indicated as D909 on the P. C. Board.

This P. C. B connection diagram is viewed from the parts mounted side.

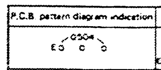
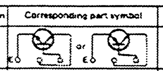
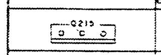
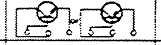
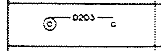
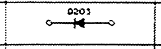
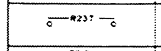
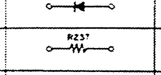
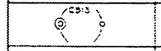
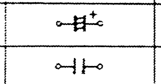
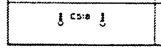
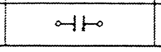

IC903
Q912–Q914
VR903
VR902
Q910 Q911
Q902
VR901
Q901
Q906
IC902
IC901 Q907
Q905
Q903
Q909
Q908
Q904
CMK-140SX
ANP1530-A
FM TUNE
AM TUNE
S-meter
LW
MW
12.0 (when AM)
2.0 (when AM)
1.5 (when AM)
1.1 (when AM)
4.4 (when MAX)
0 (when AM)
1.4 (when MAX)
0.6 (when STEREO)
11.4 (when AM)
4.0 (when MONO)
1.7 when AM)
*1
*2 R937
VCO
MONO
ST
MUTE
LOCAL
PIONEER
AWE1226-A
CLK
DA
FM
AM
TUNER assembly (AWE1226)


To MAIN Assembly CN18 (To page 21)
C968
OSC
VT
GND
+B
GND
IF
+B
VT
AGC
ANT
GND
ANT
2 Serial F. E. Module assembly (AXQ1002)

NOTE :
**1 is indicated as R937 on the P. C. Board.*
**2 is indicated as D909 on the P. C. Board.*

NOTE

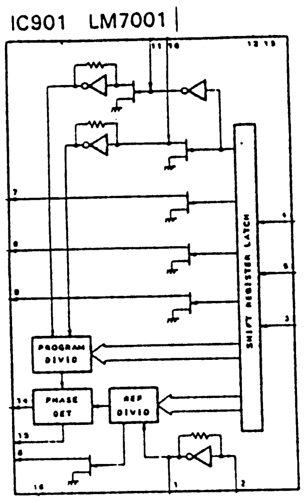
1. The P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radistor type transistor
		Diode
		Resistor
		Capacitor (Polarized)
		Capacitor (Non-polarized)

Others

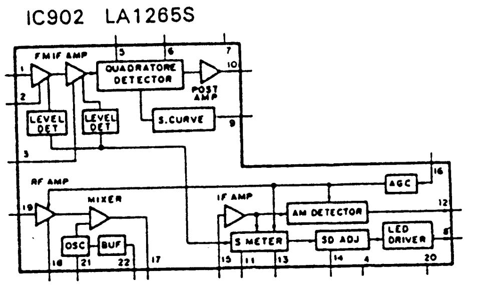
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ⊚ (double circles) shows negative terminal.
4. The diode terminal marked with ⊚ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.


IC901 LM7001
PROGRAM DIVID
PHASE DET
REF DIVID
SHIFT REGISTER LATCH

IC901 (LM7001)

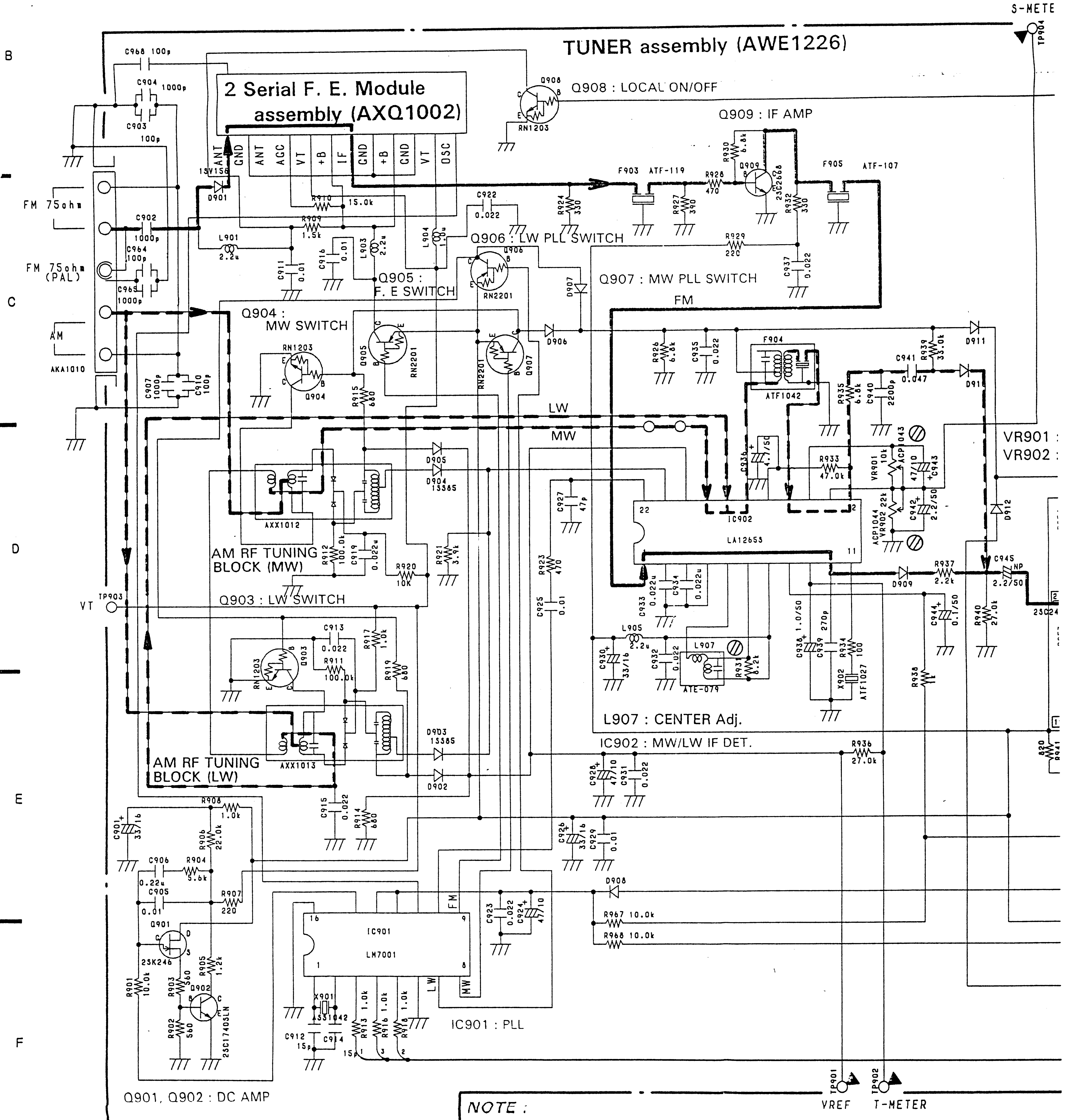
Pin No.	Voltage	Pin No.	Voltage
1	1.1	9	0.46
2	1.5	10	0 (1.7 when AM)
3	0	11	2.7
4	0	12	5.0
5	0	13	5.0
6	0	14	0.7
7	—	15	—
8	0	16	0


IC902 LA1265S
FMIF AMP
QUADRATURE DETECTOR
POST AMP
LEVEL DET
LEVEL DET
S.CURVE
RF AMP
MIXER
OSC
BUF
IF AMP
AM DETECTOR
AGC
S METER
SD ADJ
LED DRIVER

IC902 (LA1265S)

Pin No.	Voltage	Pin No.	Voltage	Pin No.
1	2.3	10	2.8	17
2	2.3	11	1.5	
3	2.3	12	1.5	18
4	0	13	1.4 (when MAX)	
5	12.0	14	1.4 (when MAX)	19
6	12.0		0 (when AM)	
7	12.0	15	2.3	20
8	0 (T)		1.1 (when AM)	21
	5.1 (D)	16	1.4	22
9	3.8			

NOTE :
(T) when TUNE IND. is ON, (D) when TUNE IND. is OFF.

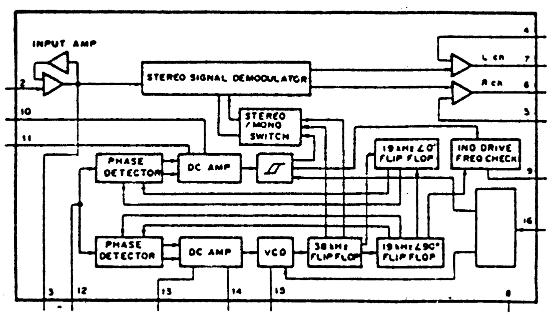

S-METE
TP904
TUNER assembly (AWE1226)
2 Serial F. E. Module assembly (AXQ1002)
ANT GND ANT AGC VT +B IF GND +B GND VT OSC
Q908 : LOCAL ON/OFF
Q909 : IF AMP
F903 ATF-119
F905 ATF-107
Q906 : LW PLL SWITCH
Q907 : MW PLL SWITCH
Q905 : F. E SWITCH
Q904 : MW SWITCH
FM 75ohm
FM 75ohm (PAL)
AM
AKA1010
FM
LW
MW
F904
ATF1042
VR901
VR902
IC902
LA1265S
AXX1012
AM RF TUNING BLOCK (MW)
Q903 : LW SWITCH
VT
TP903
AXX1013
AM RF TUNING BLOCK (LW)
L907 : CENTER Adj.
IC902 : MW/LW IF DET.
ATE-079
X902 ATF1027
IC901
LM7001
IC901 : PLL
X901
Q901, Q902 : DC AMP
2SK246
2SC1740SLN
VREF
T-METER
TP901
TP902

NOTE :
The TUNER assemblies of SX – P920 and SX – P720 types are the same.

Voltage	Pin No.	Voltage
2.8	17	·0
1.5		12.0 (when AM)
1.5	18	0
1.4 (when MAX)		2.0 (when AM)
1.4 (when MAX)	19	0
0 (when AM)		2.0 (when AM)
2.3	20	3.8
1.1 (when AM)	21	3.8
1.4	22	2.8
		1.5 (when AM)

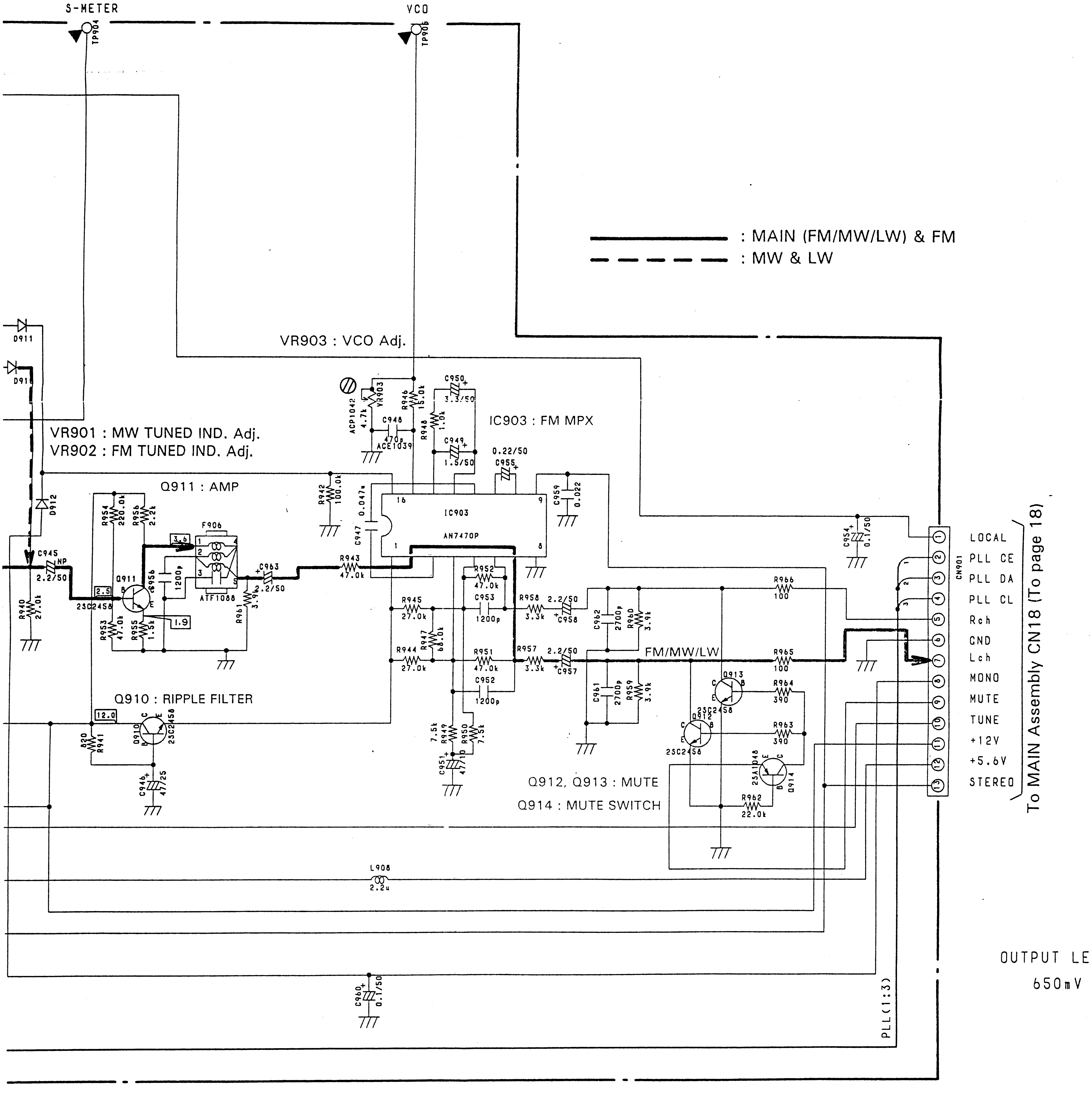
n TUNE IND. is OFF.

IC903 AN7470P

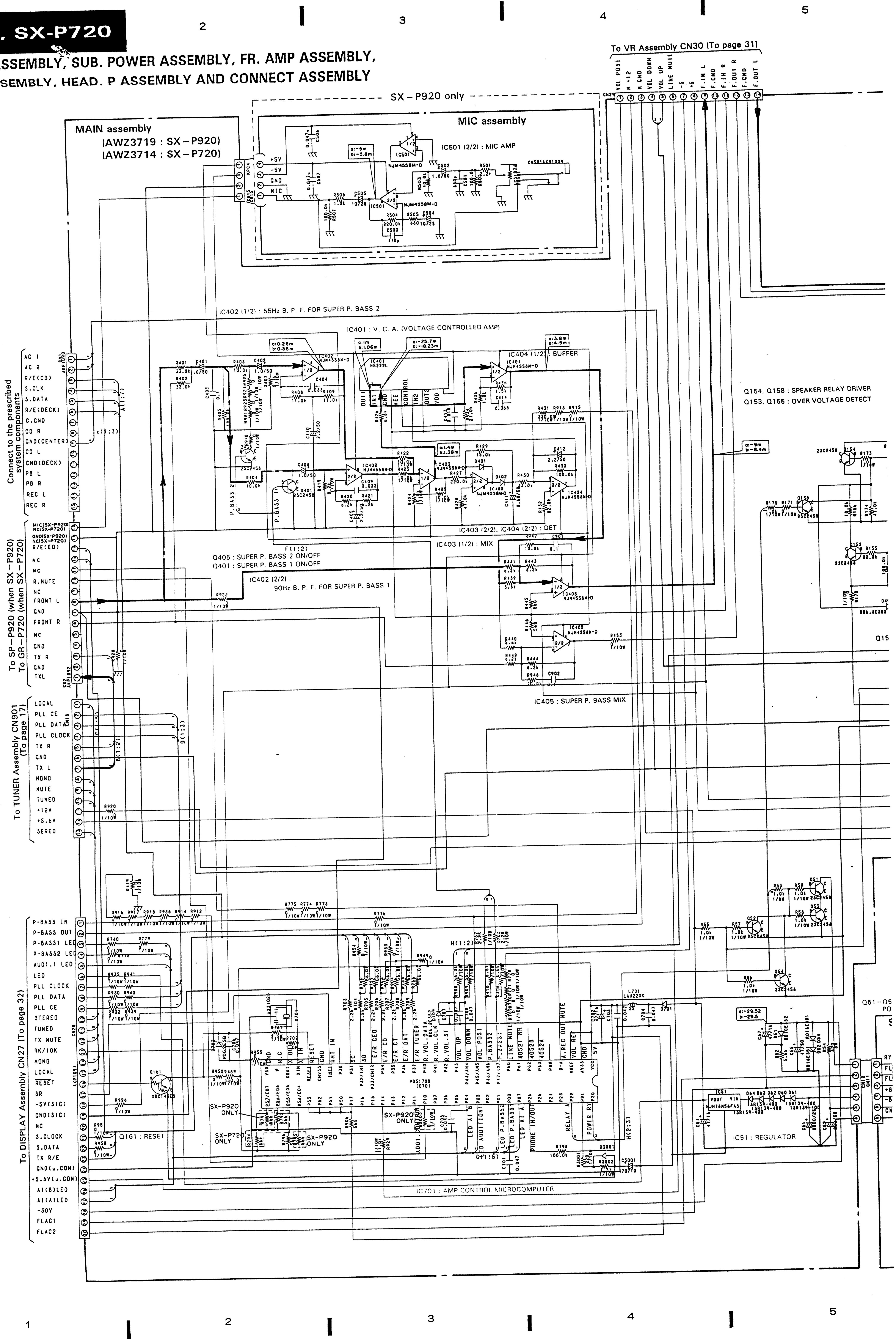

INPUT AMP
STEREO SIGNAL DEMODULATOR
STEREO /MONO SWITCH
PHASE DETECTOR
DC AMP
19kHz ∠0° FLIP FLOP
IND DRIVE FREQ CHECK
PHASE DETECTOR
DC AMP
VCO
38kHz FLIP FLOP
19kHz ∠90° FLIP FLOP
L ch
R ch
2
10
11
4
7
6
5
9
16
3
12
13
14
15
8

IC903 (AN7470P)

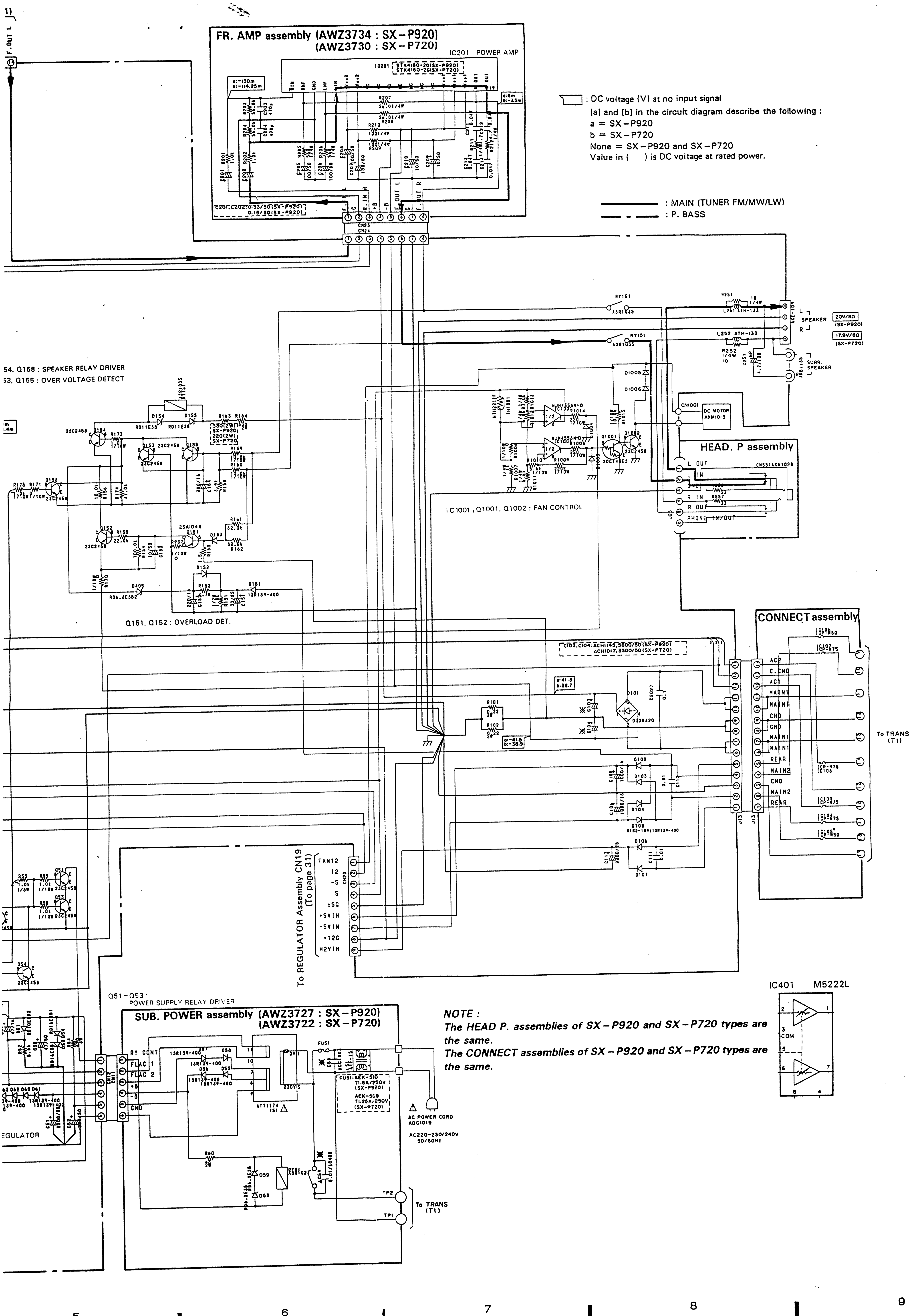
Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	11.2	9	4.9	15	3.2
2	2.6		0.6 (when STEREO)	16	0
3	6.1				11.4 (when AM)
4	8.9	10	2.6		
5	8.9	11	2.6		4.0 (when MONO)
6	3.9	12	2.6		
7	3.9	13			
8	0	14	2.6		


S-METER
TP904
VCO
TP906
: MAIN (FM/MW/LW) & FM
: MW & LW
D911
D912
D912
VR903 : VCO Adj.
VR901 : MW TUNED IND. Adj.
VR902 : FM TUNED IND. Adj.
Q911 : AMP
ACP1042
4.7k
VR903
R946
15.0k
C948
470p
ACE1039
R948
1.0k
C950
3.3/50
C949
1.5/50
0.22/50
C955
IC903 : FM MPX
R942
100.0k
C947
0.047u
IC903
AN7470P
16
1
9
8
C959
0.022
C954
0.1/50
R954
220.0k
R956
2.2k
F906
ATF1088
3.6
C945
NP
2.2/50
R940
27.0k
2.5
Q911
2SC2458
C956
1200p
1.9
R953
47.0k
R955
1.5k
C963
2.2/50
R961
3.9k
R943
47.0k
R952
47.0k
R945
27.0k
C953
1200p
R947
68.0k
R944
27.0k
R951
47.0k
C952
1200p
R958
3.3k
2.2/50
C958
R957
3.3k
2.2/50
C957
C962
2700p
R960
3.9k
C961
2700p
R959
3.9k
FM/MW/LW
R966
100
R965
100
Q913
2SC2458
R964
390
Q912
2SC2458
R963
390
Q914
2SA1048
R962
22.0k
Q910 : RIPPLE FILTER
12.0
Q910
2SC2458
R941
820
C946
47/25
R949
7.5k
R950
7.5k
C951
47/10
Q912, Q913 : MUTE
Q914 : MUTE SWITCH
L908
2.2u
C960
0.1/50
PLL(1:3)
CN901
1 LOCAL
2 PLL CE
3 PLL DA
4 PLL CL
5 Rch
6 GND
7 Lch
8 MONO
9 MUTE
10 TUNE
11 +12V
12 +5.6V
13 STEREO
To MAIN Assembly CN18 (To page 18)
OUTPUT LEV
650mV

3 MAIN ASSEMBLY, SUB. POWER ASSEMBLY, FR. AMP ASSEMBLY, MIC ASSEMBLY, HEAD. P ASSEMBLY AND CONNECT ASSEMBLY



1
2
3
4
5
To VR Assembly CN30 (To page 31)
VOL POSI
K +12
K GND
VOL DOWN
VOL UP
LINE MUTE
-5
+5
F.IN L
F.GND
F.IN R
F.OUT R
F.GND
F.OUT L
CN29
SX-P920 only
MIC assembly
MAIN assembly
(AWZ3719 : SX-P920)
(AWZ3714 : SX-P720)
IC501 (2/2) : MIC AMP
NJM4558M-D
CN501AKN1009
+5V
-5V
GND
MIC
IC402 (1/2) : 55Hz B. P. F. FOR SUPER P. BASS 2
IC401 : V. C. A. (VOLTAGE CONTROLLED AMP)
IC401 HS222L
OUT1
IN1
GND
VEE
CONTROL
IN2
OUT2
VDD
IC404 (1/2) : BUFFER
Q154, Q158 : SPEAKER RELAY DRIVER
Q153, Q155 : OVER VOLTAGE DETECT
IC403 (2/2), IC404 (2/2) : DET
IC403 (1/2) : MIX
Q405 : SUPER P. BASS 2 ON/OFF
Q401 : SUPER P. BASS 1 ON/OFF
IC402 (2/2) :
90Hz B. P. F. FOR SUPER P. BASS 1
IC405 : SUPER P. BASS MIX
P.BASS 2
P.BASS 1
Connect to the prescribed system components
AC 1
AC 2
R/E(CD)
S.CLK
S.DATA
R/E(DECK)
C.GND
CD R
GND(CENTER)
CD L
GND(DECK)
PB L
PB R
REC L
REC R
To SP-P920 (when SX-P920)
To GR-P720 (when SX-P720)
MIC(SX-P920)
NC(SX-P720)
GND(SX-P920)
NC(SX-P720)
R/E(EQ)
NC
NC
R.MUTE
NC
FRONT L
GND
FRONT R
NC
GND
TX R
GND
TXL
To TUNER Assembly CN901 (To page 17)
LOCAL
PLL CE
PLL DATA
PLL CLOCK
TX R
GND
TX L
MONO
MUTE
TUNED
+12V
+5.6V
SEREO
To DISPLAY Assembly CN27 (To page 32)
P-BASS IN
P-BASS OUT
P-BASS1 LED
P-BASS2 LED
AUDI.1 LED
LED
PLL CLOCK
PLL DATA
PLL CE
STEREO
TUNED
TX MUTE
9K/10K
MONO
LOCAL
RESET
SR
+5V(SIC)
GND(SIC)
NC
S.CLOCK
S.DATA
TX R/E
GND(u.COM)
+5.6V(u.COM)
AI(B)LED
AI(A)LED
-30V
FLAC1
FLAC2
Q161 : RESET
SX-P920 ONLY
SX-P720 ONLY
PD5170B
IC701
IC701 : AMP CONTROL MICROCOMPUTER
L701 LAU220K
IC51 : REGULATOR
Q51-Q5


FR. AMP assembly (AWZ3734 : SX-P920)
(AWZ3730 : SX-P720)
IC201 : POWER AMP
IC201 STK4160-2G(SX-P920) STK4160-2G(SX-P720)
a:-130m
b:-114.25m
a:6m
b:-3.5m
C201,C202:0.33/50(SX-P920) 0.15/50(SX-P920)
CN23
CN24
F.OUT L
RY151
A5R1035
R251
L251 ATH-133
L252 ATH-133
R252
SPEAKER
20V/8Ω (SX-P920)
17.9V/8Ω (SX-P720)
SURR. SPEAKER
54, Q158 : SPEAKER RELAY DRIVER
53, Q155 : OVER VOLTAGE DETECT
D1005
D1006
CN1001
DC MOTOR AXM1013
HEAD. P assembly
L OUT
L IN
GND
R IN
R OUT
PHONE IN/OUT
CNS51AKN1028
IC1001, Q1001, Q1002 : FAN CONTROL
NJM4558H-D
Q1001
Q1002
XDC143E3
2SC2458
2SA1048
Q151, Q152 : OVERLOAD DET.
CONNECT assembly
C103, C104: ACH1145, 5600/50(SX-P920)
ACH1017, 3300/50(SX-P720)
a:41.3
b:38.7
a:-41.5
b:-38.9
D101
D3SB20
D102
D103
D104
D105
D152-159:13R139-400
D106
D107
AC2
C.GND
AC1
MAIN1
GND
REAR
MAIN2
J13
To TRANS (T1)
FAN12
12
-5
5
±5C
+5VIN
-5VIN
+12C
H2VIN
CN20
To REGULATOR Assembly CN19 (To page 31)
IC401 M5222L
COM
Q51-Q53 :
POWER SUPPLY RELAY DRIVER
SUB. POWER assembly (AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)
RY CONT
FLAC 1
FLAC 2
+B
-B
GND
CN18
13R139-400
ATT1174 TS1
FUS1
FUS1: AEK-510 T1.6A/250V (SX-P920)
AEK-509 T1.25A/250V (SX-P720)
AC POWER CORD ADG1019
AC220-230/240V 50/60Hz
TP2
TP1
To TRANS (T1)
REGULATOR

▭ : DC voltage (V) at no input signal

[a] and [b] in the circuit diagram describe the following :

a = SX-P920

b = SX-P720

None = SX-P920 and SX-P720

Value in ( ) is DC voltage at rated power.

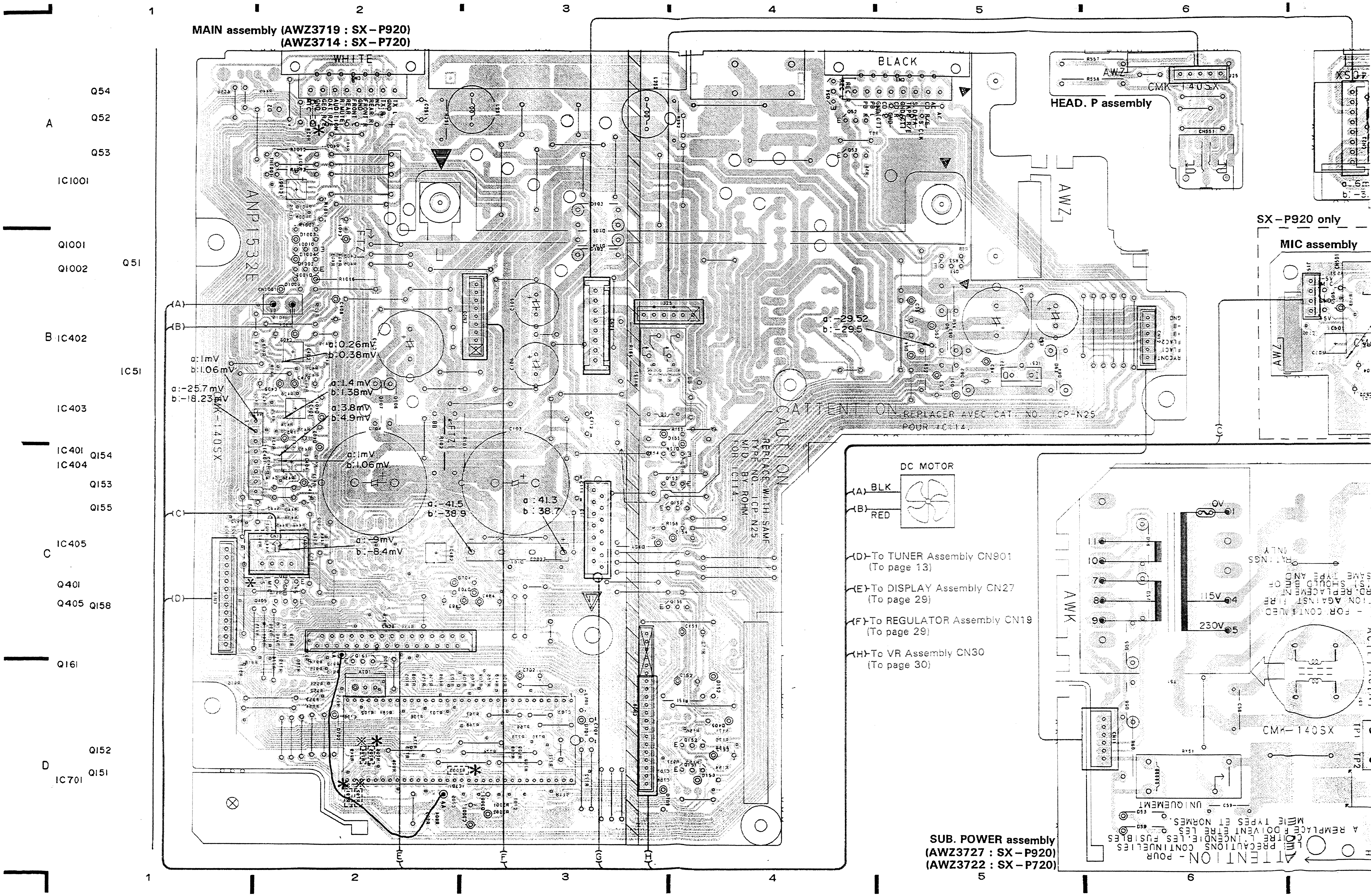
——— : MAIN (TUNER FM/MW/LW)

— - — : P. BASS

NOTE :

The HEAD P. assemblies of SX-P920 and SX-P720 types are the same.

The CONNECT assemblies of SX-P920 and SX-P720 types are the same.


1
2
3
4
5
6
A
B
C
D
MAIN assembly (AWZ3719 : SX-P920)
(AWZ3714 : SX-P720)
WHITE
BLACK
HEAD. P assembly
CMK-140SX
AWZ
SX-P920 only
MIC assembly
ANP1532E
Q54
Q52
Q53
IC1001
Q1001
Q1002
Q51
IC402
IC51
IC403
IC401
IC404
Q154
Q153
Q155
IC405
Q401
Q405
Q158
Q161
Q152
Q151
IC701
(A)
(B)
(C)
(D)
(E)
(F)
(G)
(H)
a:0.26mV
b:0.38mV
a:1mV
b:1.06mV
a:-25.7mV
b:-18.23mV
a:1.4mV
b:1.38mV
a:3.8mV
b:4.9mV
a:1mV
b:1.06mV
a:-41.5
b:-38.9
a:41.3
b:38.7
a:-9mV
b:-8.4mV
a:-29.52
b:-29.5
CAUTION
REPLACE WITH SAME TYPE NO. ICP-N25 MFD BY ROHM FOR IC114.
ATTENTION
REPLACER AVEC CAT. NO. ICP-N25 POUR IC114.
DC MOTOR
(A) BLK
(B) RED
(D) To TUNER Assembly CN901
(To page 13)
(E) To DISPLAY Assembly CN27
(To page 29)
(F) To REGULATOR Assembly CN19
(To page 29)
(H) To VR Assembly CN30
(To page 30)
AWK
0V
11
10
7
8
9
115V
230V
CMK-140SX
UNIQUEMENT
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES.
SUB. POWER assembly
(AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)

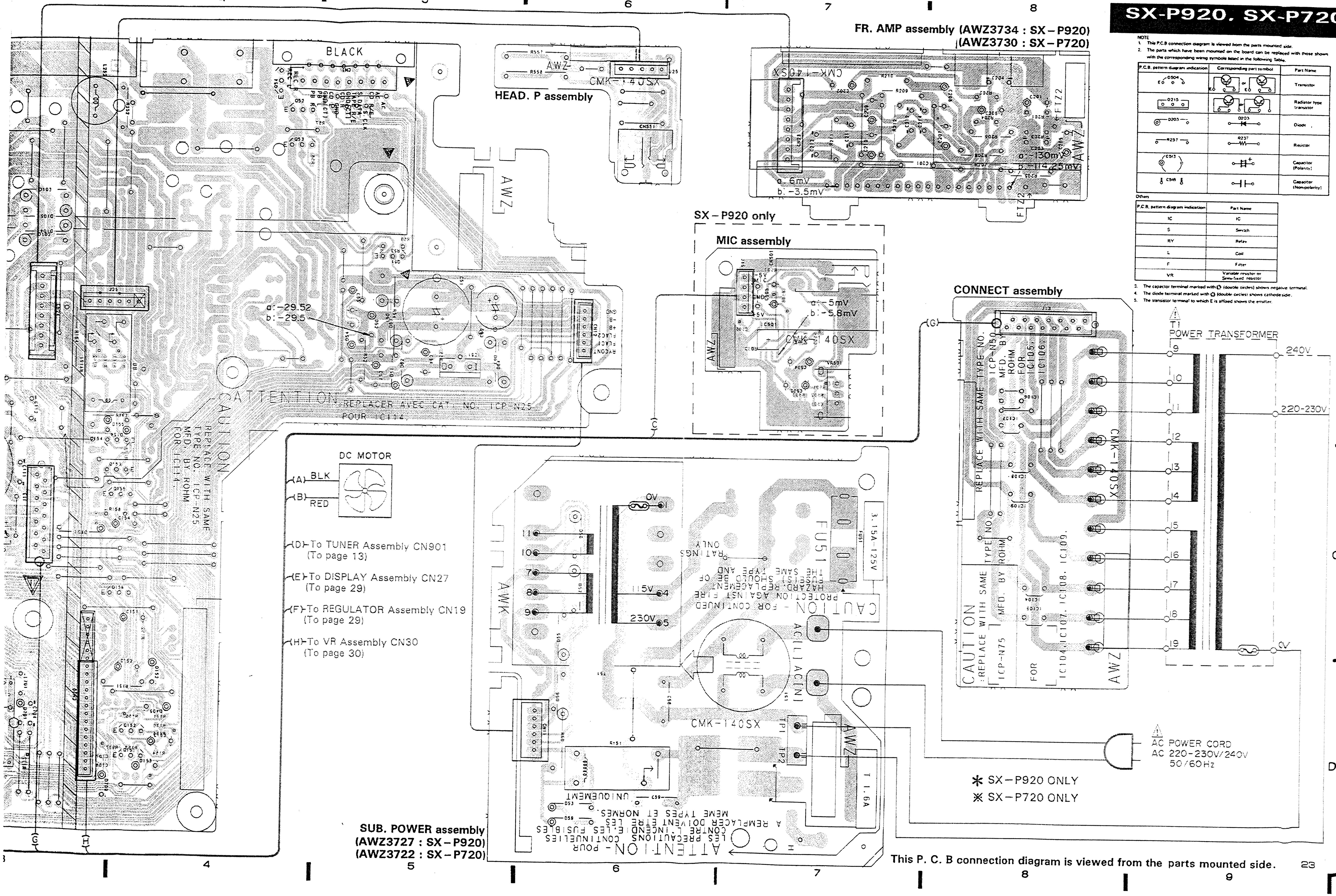
NOTE
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	E or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarity)
C518		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

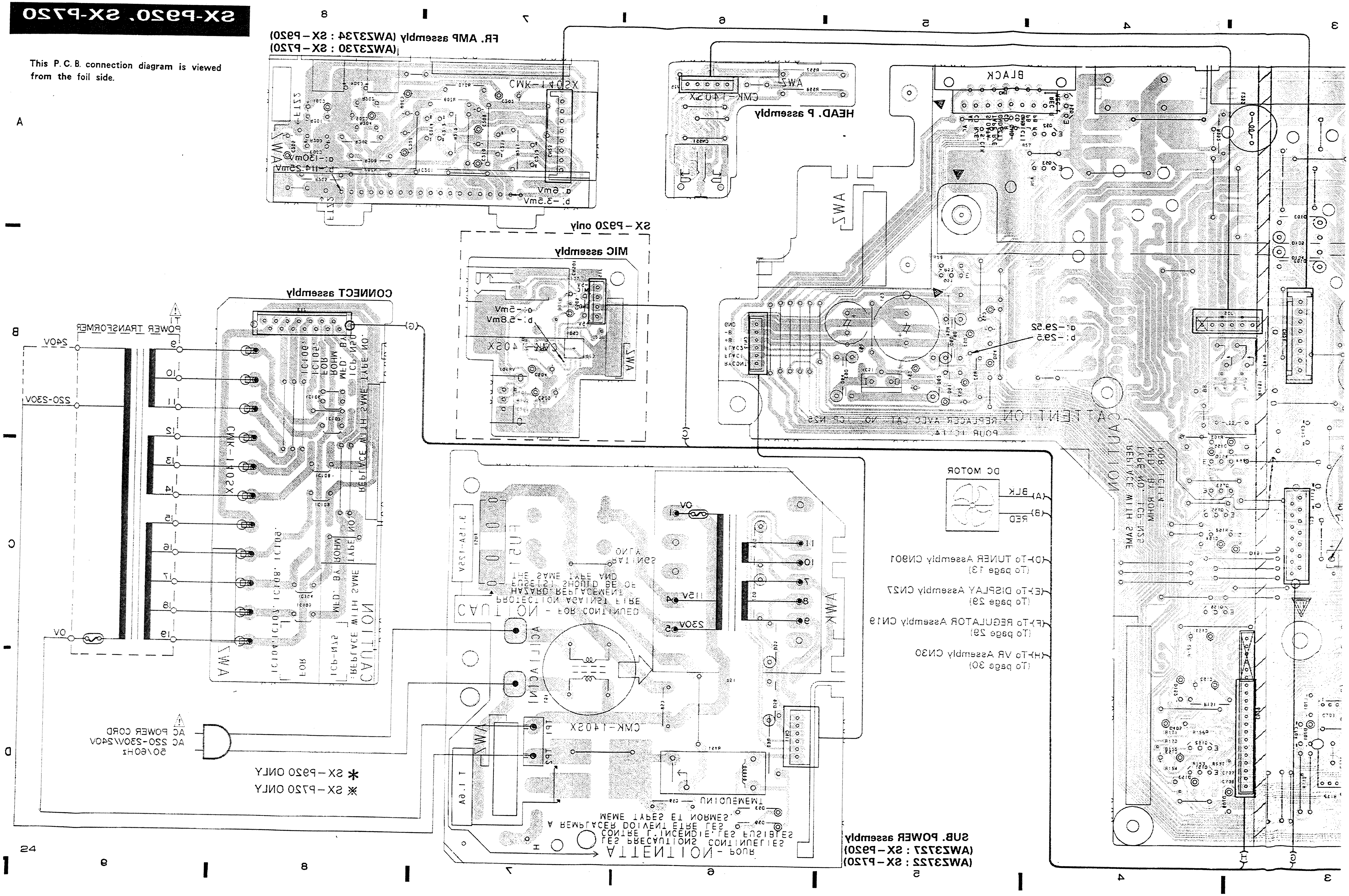
3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

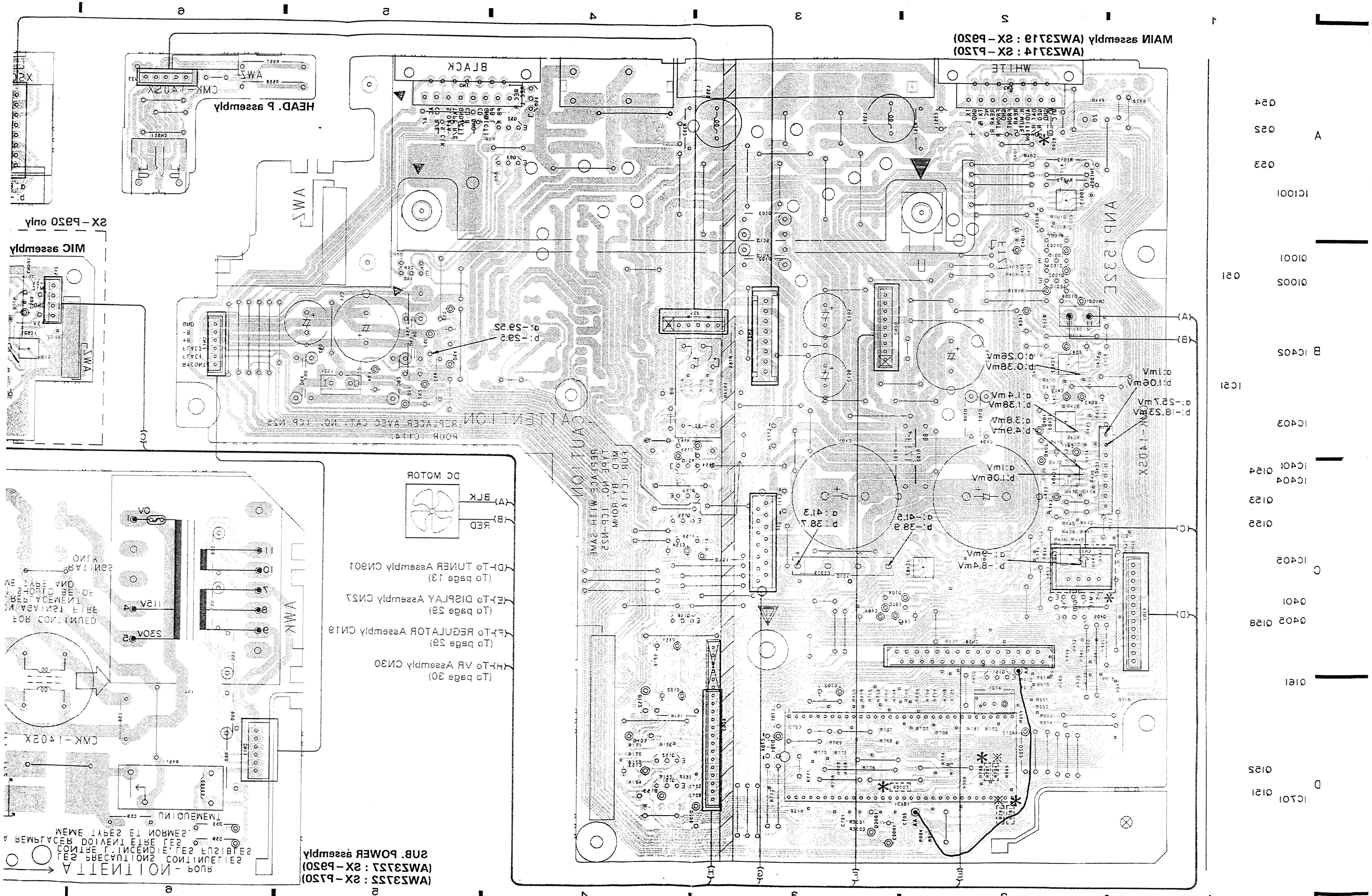

3
4
5
6
7
8
9
A
B
C
D
HEAD. P assembly
FR. AMP assembly (AWZ3734 : SX-P920)
(AWZ3730 : SX-P720)
SX-P920 only
MIC assembly
CONNECT assembly
SUB. POWER assembly
(AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)
BLACK
CMK-140SX
AWZ
AWK
a: -29.52
b: -29.5
a: -130mV
b: -114.25mV
a: -6mV
b: -3.5mV
a: -5mV
b: -5.8mV
ATTENTION: REPLACER AVEC CAT. NO. ICP-N25 POUR IC114.
CAUTION REPLACE WITH SAME TYPE NO. ICP-N25 MFD. BY ROHM FOR IC114
DC MOTOR
(A) BLK
(B) RED
(C)
(G)
(D) To TUNER Assembly CN901 (To page 13)
(E) To DISPLAY Assembly CN27 (To page 29)
(F) To REGULATOR Assembly CN19 (To page 29)
(H) To VR Assembly CN30 (To page 30)
REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM FOR IC105, IC106
REPLACE WITH SAME TYPE NO. ICP-N75 MFD. BY ROHM FOR IC104, IC107, IC108, IC109.
CAUTION
FU51
3.15A 125V
T1.6A
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT OF FUSE(S) SHOULD BE OF THE SAME TYPE AND RATINGS ONLY
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES UNIQUEMENT
0V
115V 4
230V 5
11
10
7
8
9
AC(L)
AC(N)
TP1
TP2
T1
POWER TRANSFORMER
240V
220-230V
0V
12
13
14
15
16
17
18
19
AC POWER CORD
AC 220-230V/240V
50/60Hz
✱ SX-P920 ONLY
※ SX-P720 ONLY

This P. C. B connection diagram is viewed from the parts mounted side.

SX-P920. SX-P720

This P.C.B. connection diagram is viewed from the foil side.


8
7
6
5
4
3
A
B
C
D
FR. AMP assembly (AWZ3734 : SX-P920)
(AWZ3730 : SX-P720)
CMK-1405X
a: -130mV
b: -114.25mV
a: 6mV
b: -3.5mV
HEAD. P assembly
CMK-1405X
BLACK
MIC assembly
SX-P920 only
a: -5mV
b: -5.8mV
CMK-1405X
CONNECT assembly
POWER TRANSFORMER
240V
220-230V
0V
9
10
11
12
13
14
15
16
17
18
19
CAUTION : REPLACE WITH SAME TYPE NO. ICP-N25 MFD. BY ROHM FOR IC101, IC102, IC106, IC107, IC108, IC109
a: -29.5Z
b: -29.5
ATTENTION : REPLACER AVEC CAT. NO. ICP-N25 POUR IC114
CAUTION : REPLACE WITH SAME TYPE NO. ICP-N25 MFD. BY ROHM FOR IC114
DC MOTOR
BLK (A)
RED (B)
(D) To TUNER Assembly CN901 (To page 13)
(E) To DISPLAY Assembly CN27 (To page 29)
(F) To REGULATOR Assembly CN19 (To page 29)
(H) To VR Assembly CN30 (To page 30)
(G)
(C)
AC POWER CORD
AC 220-230V/240V
50/60Hz
✱ SX-P920 ONLY
※ SX-P720 ONLY
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES.
FUSE
T3.15A-125V
T1.6A
0V
11
10
7
8
9
115V
230V
CMK-1405X
SUB. POWER assembly
(AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)


MAIN assembly (AWZ3719 : SX-P920)
(AWZ3714 : SX-P720)
HEAD. P assembly
SX-P920 only
MIC assembly
SUB. POWER assembly
(AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)
1
2
3
4
5
6
A
B
C
D
Q54
Q52
Q53
IC1001
Q1001
Q1002
Q51
IC402
IC51
IC403
IC401
Q154
IC404
Q153
Q155
IC405
Q401
Q405
Q158
Q161
Q152
Q151
IC701
WHITE
BLACK
CMK-140SX
ANP1532-E
AWZ
DC MOTOR
BLK
RED
(A)
(B)
(C)
(D)
(D)-To TUNER Assembly CN901
(To page 13)
(E)-To DISPLAY Assembly CN27
(To page 29)
(F)-To REGULATOR Assembly CN19
(To page 29)
(H)-To VR Assembly CN30
(To page 30)
a:-29.52
b:-29.5
a:0.26mV
b:0.38mV
a:1mV
b:1.06mV
a:1.4mV
b:1.38mV
a:-25.7mV
b:-18.23mV
a:3.8mV
b:4.9mV
a:1mV
b:1.06mV
a:41.3
b:38.7
a:-41.5
b:-38.9
a:-9mV
b:-8.4mV
ATTENTION: REPLACER AVEC CAT. NO. ICP-N25 POUR IC114
CAUTION - FOR IC114 REPLACE WITH SAME TYPE NO. ICP-N25 MFD. BY ROHM
0V
115V
230V
FOR CONTINUED PROTECTION AGAINST FIRE REPLACEMENT SHOULD BE OF SAME TYPE AND RATINGS ONLY
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES.

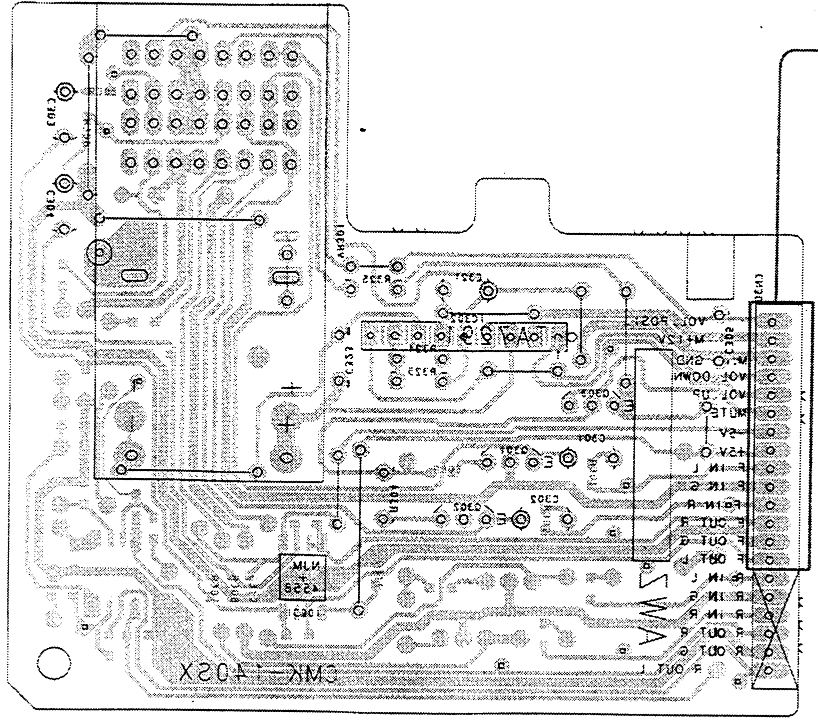
3.4 DISPLAY ASSEMBLY, VR ASSEMBLY AND REGULATOR ASSEMBLY

VR assembly (AWZ3708)

This P.C.B. connection diagram is viewed from the foil side.

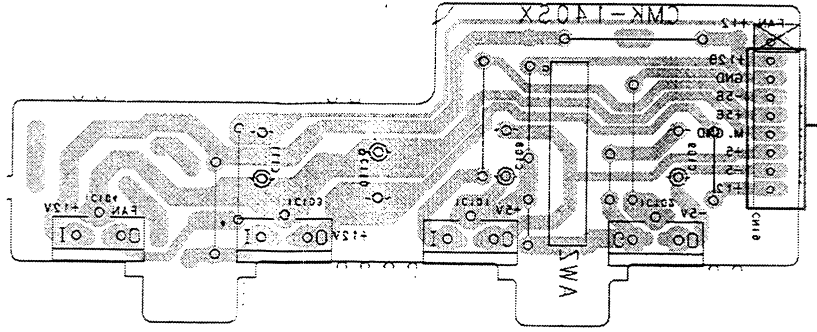
* SX-P920 ONLY

※ SX-P720 ONLY


CMK-140SX
VOL POSI
+12V
GND
VOL DOWN
VOL UP
MUTE
+5V
IC301
NJM 4556

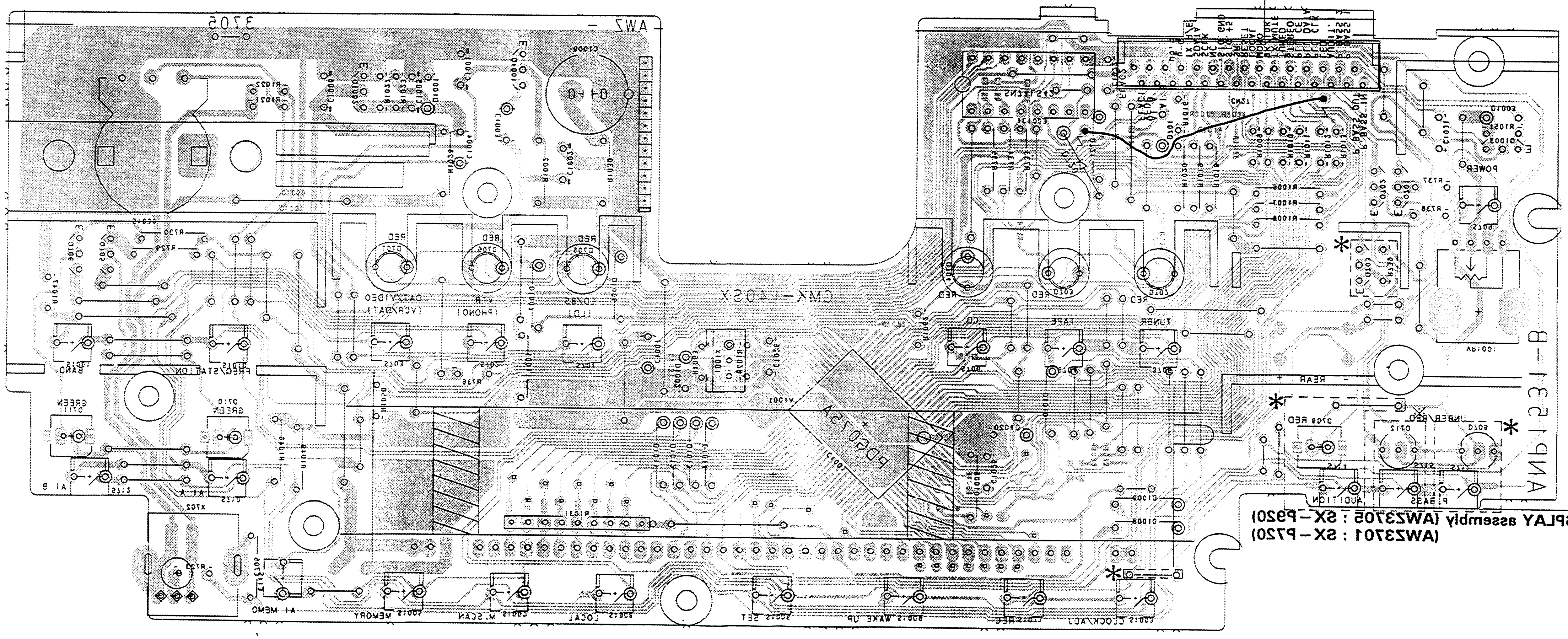
To MAIN Assembly CN29 (To page 21)

REGULATOR assembly (AWZ4009)


CMK-140SX
+12V
FAN
+5V
M.GND
CN10
AWZ

To MAIN Assembly CN20 (To page 21)

To MAIN Assembly CN28 (To page 21)

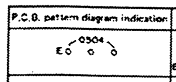
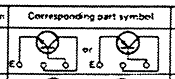
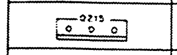
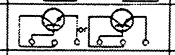
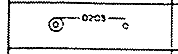
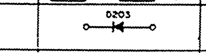
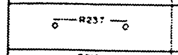
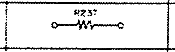
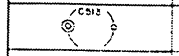
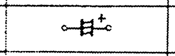
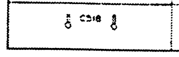
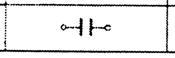

AWZ 3705
CMK-140SX
ANP1531-B
PD6015A
RED
GREEN
POWER
TUNER
TAPE
CD
V-R (PHONO)
CD/LD
DAT/VIDEO (VCR/DAT)
BAND
FREQ/STATION
A1 B
A1 A
A1 MEMO
MEMORY
M.SCAN
LOCAL
SET
WAKE UP
CLOCK/ADJ
AUDITION
P.BASS
REAR
UNBEEPED
VR1001
X1001

DISPLAY assembly (AWZ3705 : SX-P920)
(AWZ3701 : SX-P720)

VR1001
Q1003 Q1010 Q701-Q703 IC1003 IC1001 Q1001 Q1002 Q705 Q706

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

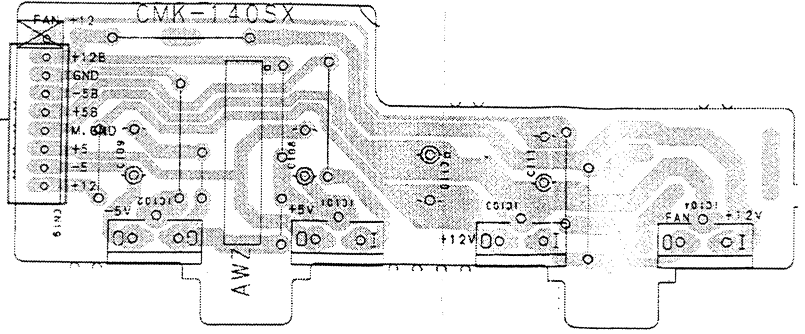
3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

✱ SX−P920 ONLY
※ SX−P720 ONLY

This P. C. B connection diagram is viewed from the parts mounted side.

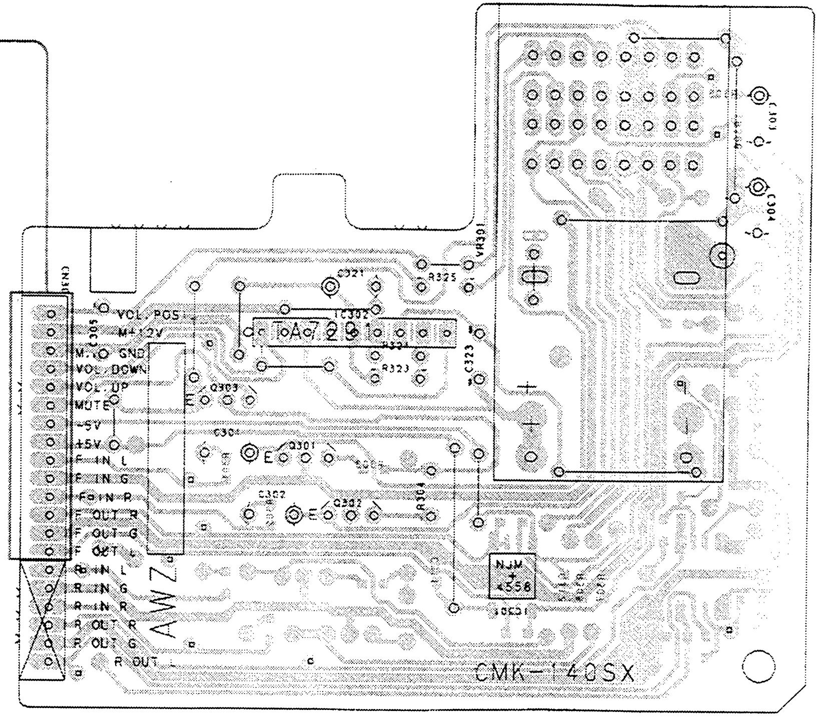
To MAIN Assembly CN29 (To page 21)

REGULATOR assembly (AWZ4009)

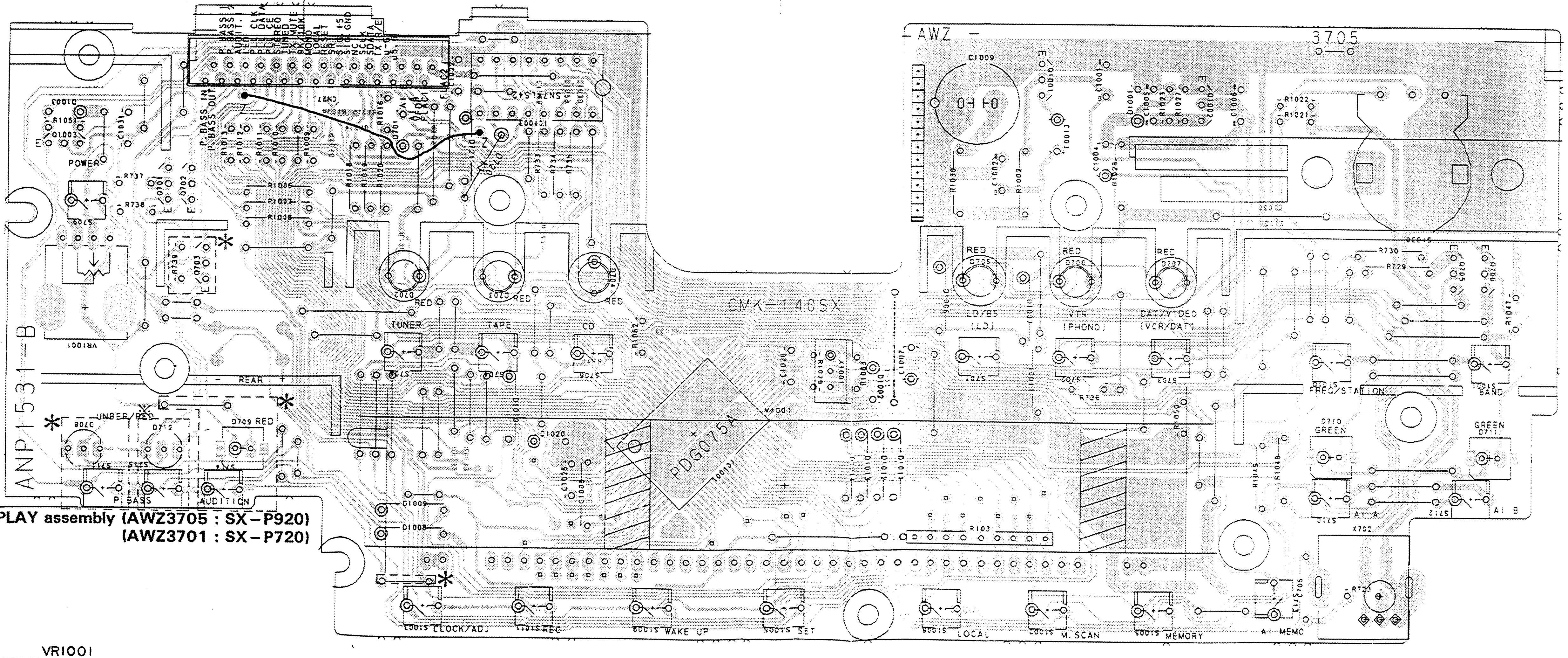

CMK−140SX
FAN +12
+12B
GND
−5B
+5B
M. GND
+5
−5
+12
CN19
C109
C108
C110
C111
IC102
IC101
IC103
IC104
−5V
+5V
+12V
FAN
+12V
AWZ

To MAIN Assembly CN20 (To page 21)

VR assembly (AWZ3708)

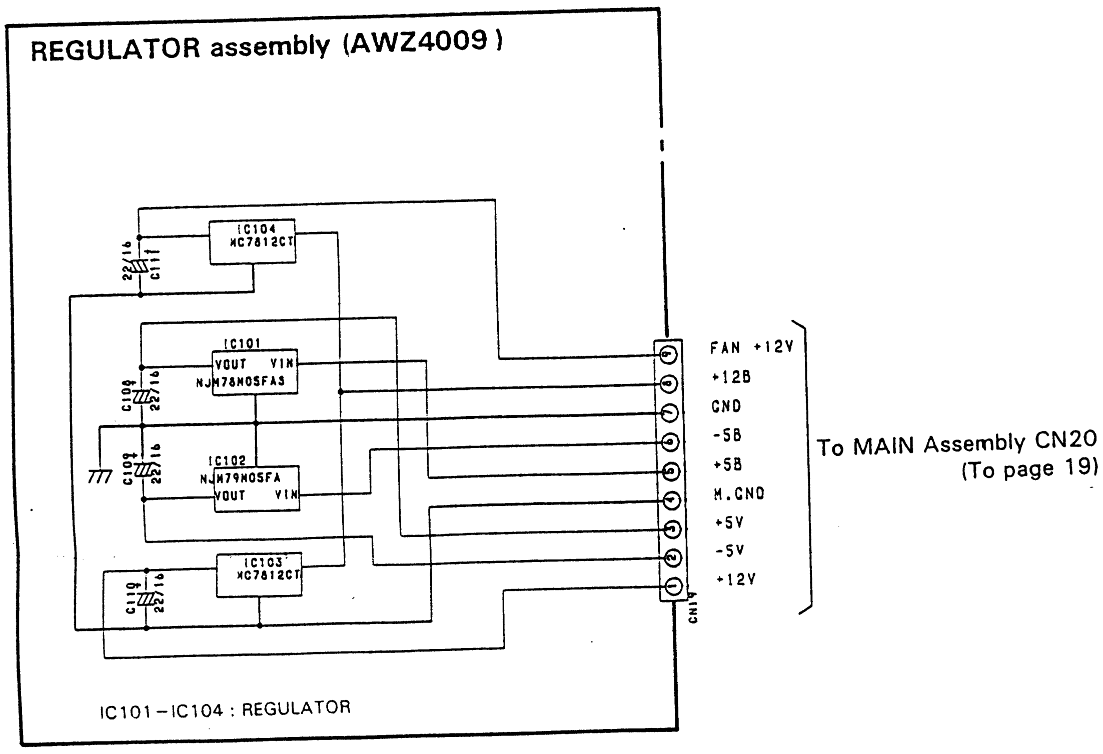

CN30
VOL. POS
M+12V
M. GND
VOL. DOWN
VOL. UP
MUTE
−5V
+5V
F IN L
F IN G
F IN R
F OUT R
F OUT G
F OUT L
R IN L
R IN G
R IN R
R OUT R
R OUT G
R OUT L
C305
C321
IC302
ToA7291
R324
R323
R325
VR301
C323
Q303
C301
Q301
C302
Q302
R304
NJM 4558
IC301
C303
C304
AWZ
CMK−140SX

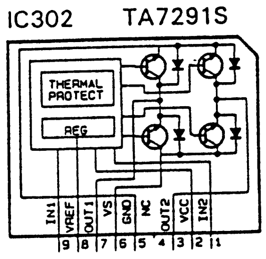
To MAIN Assembly CN28 (To page 21)

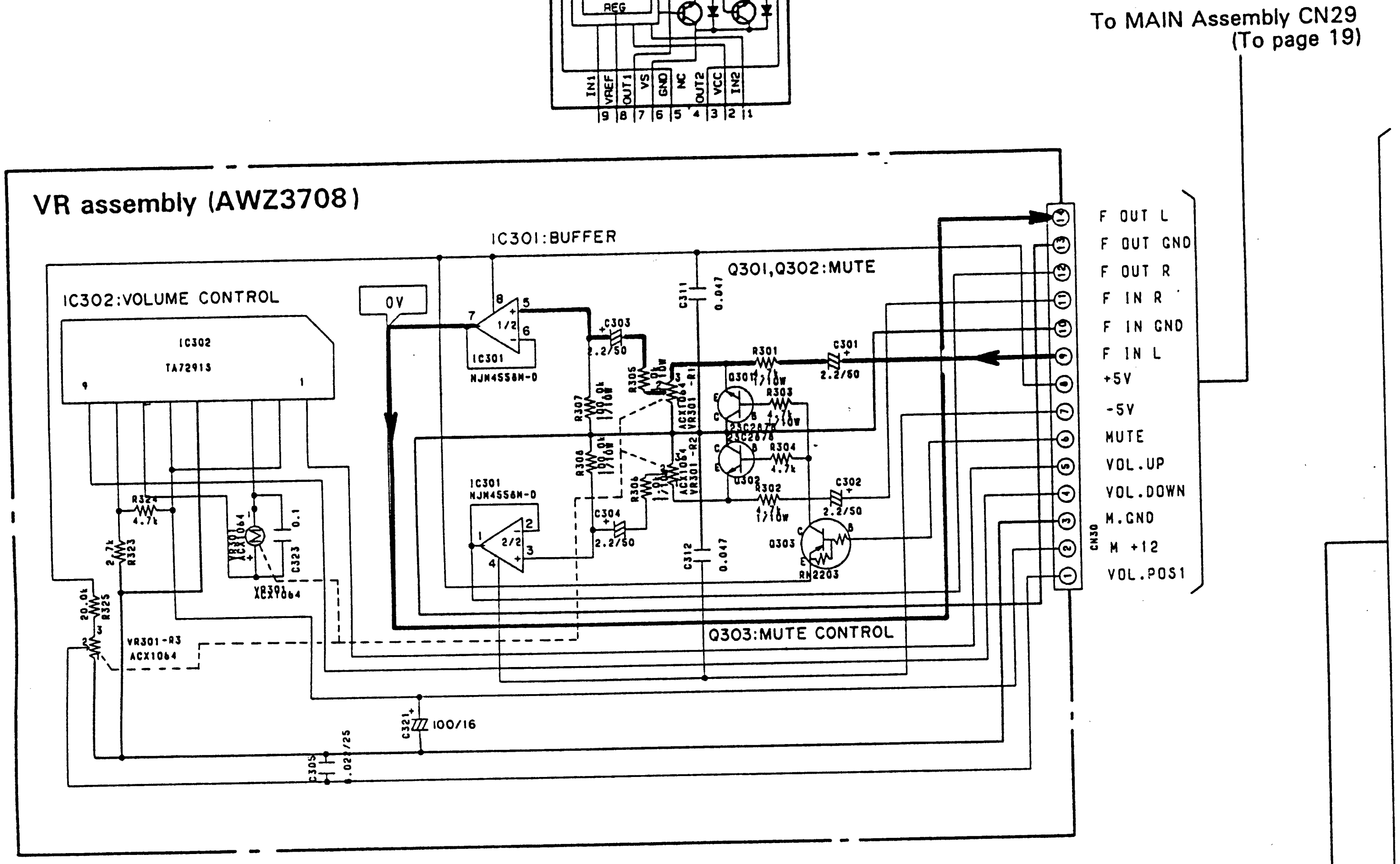

AWZ
3705
CN27
P. BASS IN
P. BASS OUT
C1010
R1051
Q1003
C1031
POWER
R737
R736
Q701
Q702
S703
R739
Q703
VR1001
ANP1531−B
C1009
R1006
R1007
R1008
R1013
R1012
R1011
R1010
R1009
R1016
Q701
R733
R734
R735
Q704
RED
TUNER
TAPE
CD
CMK−140SX
REAR
UNFER/RED
D708
D712
D709 RED
S714
S715
S716
P. BASS
AUDITION
Q1020
C1025
Q1009
Q1008
PDG075A
IC1003
IC1001
R1031
C1002
R1030
C1004
R1022
R1021
C1030
RED
D705
RED
D706
RED
D707
LD/BS
(LD)
VTR
(PHONO)
DAT/VIDEO
(VCR/DAT)
R726
R730
R729
Q705
Q706
R1047
S708
FREQ/STATION
S709
BAND
D710
GREEN
GREEN
D711
S710
S712
A1 A
X702
A1 B
R720
S705
A1 MEMO
S701
CLOCK/ADJ
S702
REC
S703
WAKE UP
S704
SET
S706
LOCAL
S707
M. SCAN
S711
MEMORY

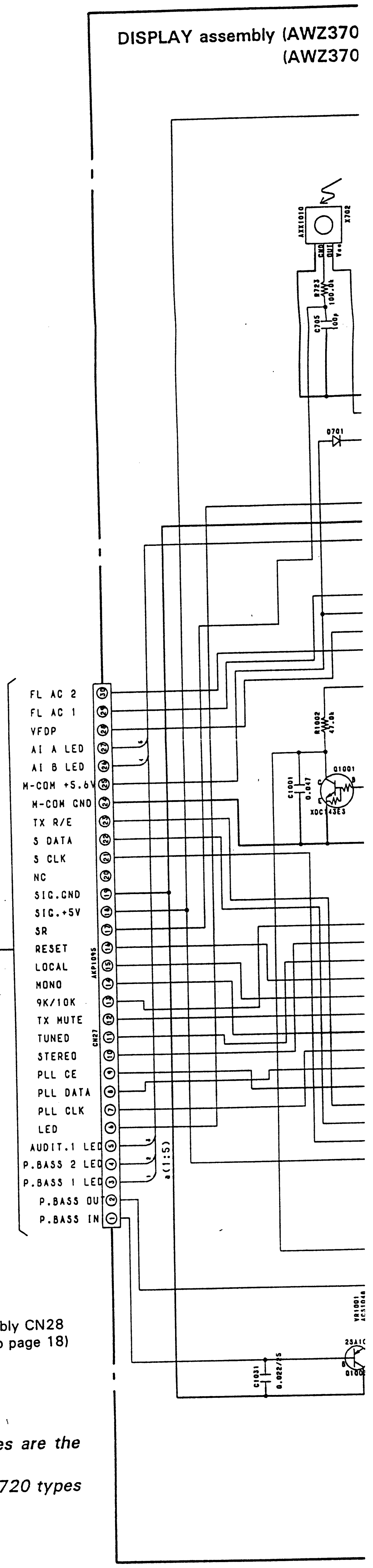
DISPLAY assembly (AWZ3705 : SX−P920)
(AWZ3701 : SX−P720)

VR1001
Q1003 Q701−Q703 IC1003 IC1001 Q1001 Q1002 Q705 Q706


REGULATOR assembly (AWZ4009)
IC104 XC7812CT
IC101 VOUT VIN NJM78M05FA3
IC102 NJM79M05FA VOUT VIN
IC103 XC7812CT
C111 22/16
C108 22/16
C109 22/16
C110 22/16
FAN +12V
+12B
GND
-5B
+5B
M.GND
+5V
-5V
+12V
CN14
IC101 – IC104 : REGULATOR
To MAIN Assembly CN20
(To page 19)


IC302 TA7291S
THERMAL PROTECT
REG
IN1 VREF OUT1 VS GND NC OUT2 VCC IN2
9 8 7 6 5 4 3 2 1

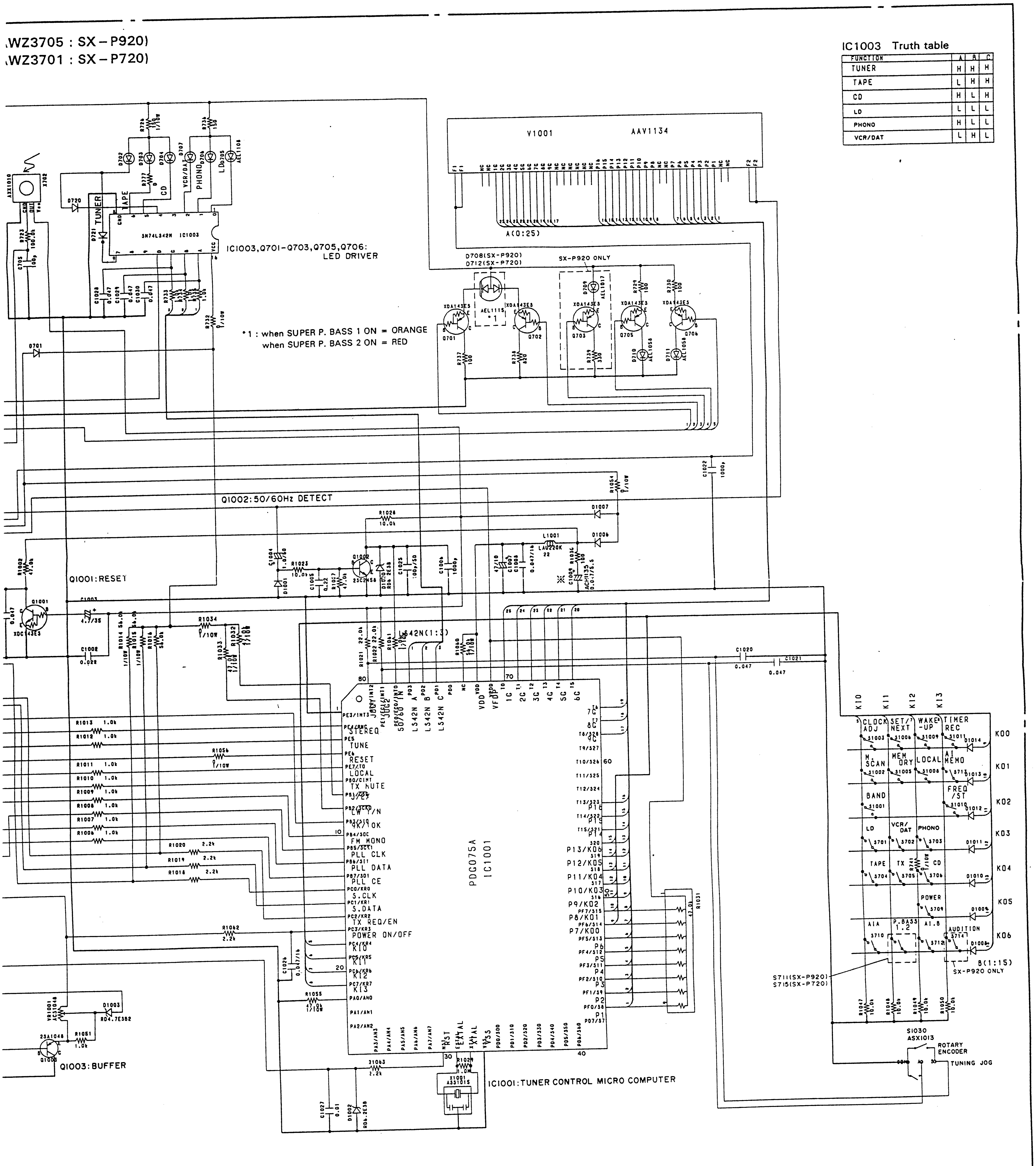

To MAIN Assembly CN29
(To page 19)
VR assembly (AWZ3708)
IC302:VOLUME CONTROL
IC302 TA7291S
IC301:BUFFER
Q301,Q302:MUTE
0V
IC301 NJM4558N-D
C303 2.2/50
C304 2.2/50
C311 0.047
C312 0.047
R301 1/10W
R302 1/10W
R303 4.7k
R304 4.7k
R305
R306
R307
R308
C301 2.2/50
C302 2.2/50
Q301 2SC2878
Q302 2SC2878
Q303 RN2203
VR301-R1 ACX1064
VR301-R2
VR301-R3 ACX1064
R324 4.7k
R323 2.7k
R325 20.0k
C323 0.1
C305 0.022/25
C321 100/16
Q303:MUTE CONTROL
CN30
F OUT L
F OUT GND
F OUT R
F IN R
F IN GND
F IN L
+5V
-5V
MUTE
VOL.UP
VOL.DOWN
M.GND
M +12
VOL.POS1


DISPLAY assembly (AWZ370
(AWZ370
AXX1010
X702
R722 100.0k
C705
D701
R1002 47.0k
C1001 0.047
Q1001
XDC143ES
CN27
AKP1095
FL AC 2
FL AC 1
VFDP
AI A LED
AI B LED
M-COM +5.6V
M-COM GND
TX R/E
S DATA
S CLK
NC
SIG.GND
SIG.+5V
SR
RESET
LOCAL
MONO
9K/10K
TX MUTE
TUNED
STEREO
PLL CE
PLL DATA
PLL CLK
LED
AUDIT.1 LED
P.BASS 2 LED
P.BASS 1 LED
P.BASS OUT
P.BASS IN
a(1:5)
VR1001
2SA1
Q1002
C1031 0.022/5
To MAIN Assembly CN28
(To page 18)

NOTE :

The VR assemblies of SX – P920 and SX – P720 types are the same.

The REGULATOR assemblies of SX – P920 and SX – P720 types are the same.


WZ3705 : SX-P920)
WZ3701 : SX-P720)
V1001
AAV1134
A(0:25)
SN74LS42N
IC1003
IC1003,Q701-Q703,Q705,Q706:
LED DRIVER
D708(SX-P920)
D712(SX-P720)
SX-P920 ONLY
AEL1115
XDA143ES
Q701
Q702
Q703
Q705
Q706
*1 : when SUPER P. BASS 1 ON = ORANGE
when SUPER P. BASS 2 ON = RED
TUNER
TAPE
CD
VCR/DAT
PHONO
LD
D720
D721
D701
Q1002:50/60Hz DETECT
Q1001:RESET
Q1001
XDC143ES
Q1002
2SC2458
L1001
LAU220K
Q1003:BUFFER
2SA1048
VR1001
D1003
LS42N(1:3)
STEREO
TUNE
RESET
LOCAL
TX MUTE
PLL CLK
PLL DATA
PLL CE
S.CLK
S.DATA
TX REQ/EN
POWER ON/OFF
K10
K11
K12
K13
FM MONO
50/60 IN
PDC075A
IC1001
IC1001:TUNER CONTROL MICRO COMPUTER
X1001
ASS1015
K10
K11
K12
K13
CLOCK ADJ
SET/NEXT
WAKE-UP
TIMER REC
M.SCAN
MEMORY
LOCAL
AI MEMO
BAND
FREQ /ST
LD
VCR/DAT
PHONO
TAPE
TX
CD
POWER
AIA
P.BASS 1.2
AI.8
AUDITION
K00
K01
K02
K03
K04
K05
K06
S711(SX-P920)
S715(SX-P720)
B(1:15)
SX-P920 ONLY
S1030
ASX1013
ROTARY ENCODER
TUNING JOG

IC1003 Truth table

FUNCTION	A	B	C
TUNER	H	H	H
TAPE	L	H	H
CD	H	L	H
LD	L	L	L
PHONO	H	L	L
VCR/DAT	L	H	L

4. PCB PARTS LIST

NOTES:

- *Part without part number cannot be supplied.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

  Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

  560Ω 56 × 10¹ 561……………………RD1/8PM[5][6][1]J
  47kΩ 47 × 10³ 473……………………RD1/4PS[4][7][3]J
  0.5Ω 0R5…………………………………RN2H[0][R][5]K
  1Ω 010…………………………………RS1P[0][1][0]K

  Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

  5.62kΩ 562 × 10¹ 5621……………………RN1/4SR[5][6][2][1]F

4.1 SX－P920/HE

LIST OF ASSEMBLIES

Mark	No.	Description	Parts No.
		TUNER ASSEMBLY	AWE1226
◉		MAIN ASSEMBLY	AWZ3719
◉		SUB. POWER ASSEMBLY	AWZ3727
◉		FR. AMP ASSEMBLY MIC ASSEMBLY HEAD. P ASSEMBLY CONNECT ASSEMBLY	AWZ3734
◉		DISPLAY ASSEMBLY	AWZ3705
◉		VR ASSEMBLY	AWZ3708
◉		REGULATOR ASSEMBLY	AWZ4009

TUNER ASSEMBLY (AWE1226)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC901	PLL IC	LM7001
	IC902	AM/FM IC	LA1265S
	IC903	MPX IC	AN7470P
	Q901	N－FET	2SK246
	Q902	TRANSISTOR	2SC1740SLN
	Q903, 904	TRANSISTOR	RN1203
	Q905－907	TRANSISTOR	RN2201
	Q908	TRANSISTOR	RN1203
	Q909	TRANSISTOR	2SC2668
	Q910－913	TRANSISTOR	2SC2458
	Q914	TRANSISTOR	2SA1048
	D901	DIODE	1SV156
	D902	DIODE	HSS104－02
	D903, 904	DIODE	1SS85
	D905－912	DIODE	HSS104－02

COILS

Mark	No.	Description	Parts No.
	F903	CERAMIC FILTER	ATF－119
	F904	CERAMIC FILTER	ATF1042
	F905	CERAMIC FILTER	ATF－107
	F906	FILTER	ATF1088
	L901, 903	AXIAL INDUCTOR	LAU2R2M
	L904	AXIAL INDUCTOR	LAU010M
	L905	AXIAL INDUCTOR	LAU2R2M
	L907	COIL	ATE－079
	L908	AXIAL INDUCTOR	LAU2R2M

CAPACITORS

Mark	No.	Description	Parts No.
	C901	ELECTR. CAPACITOR	CEAS330M16
	C902	CERAMIC CAPACITOR	CKDYF102Z50
	C903	CERAMIC CAPACITOR	CKPUYB101K50
	C904	CERAMIC CAPACITOR	CKPUYB102K50
	C905	AUDIO FILM CAPACITOR	CFTXA103J50
	C906	AUDIO FILM CAPACITOR	CFTXA224J50
	C907	CERAMIC CAPACITOR	CKPUYB102K50
	C910	CERAMIC CAPACITOR	CKPUYB101K50
	C911	AXIAL CERAMIC CAPACITOR	CKPUYF103Z25
	C912	CERAMIC CAPACITOR	CCDCH150J50
	C913	CERAMIC CAPACITOR	CKDYF223Z50
	C914	CERAMIC CAPACITOR	CCDCH150J50
	C915	CERAMIC CAPACITOR	CKDYF223Z50
	C916	AXIAL CERAMIC CAPACITOR	CKPUYF103Z25
	C919, 922	CERAMIC CAPACITOR	CKDYF223Z50
	C923	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C924	ELECTR. CAPACITOR	CEAS470M10
	C925	AXIAL CERAMIC CAPACITOR	CKPUYF103Z25
	C926	ELECTR. CAPACITOR	CEAS330M16
	C927	CERAMIC CAPACITOR	CCDSL470J50
	C928	ELECTR. CAPACITOR	CEAS470M10
	C929	AXIAL CERAMIC CAPACITOR	CKPUYF103Z25
	C930	ELECTR. CAPACITOR	CEAS330M16
	C931	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C932－935	CERAMIC CAPACITOR	CKDYF223Z50
	C936	ELECTR. CAPACITOR	CEAS4R7M50
	C937	CERAMIC CAPACITOR	CKDYF223Z50
	C938	ELECTR. CAPACITOR	CEAS010M50
	C939	CERAMIC CAPACITOR	CCDSL271J50
	C940	CERAMIC CAPACITOR	CKDYB222K50
	C941	CERAMIC CAPACITOR	CKDYF473Z50
	C942	ELECTR. CAPACITOR	CEAS2R2M50
	C943	ELECTR. CAPACITOR	CEAS470M10
	C944	ELECTR. CAPACITOR	CEAS0R1M50
	C945	ELECTR. CAPACITOR	CEANP2R2M50
	C946	ELECTR. CAPACITOR	CEAS470M25
	C947	CERAMIC CAPACITOR	CKDYF473Z50
	C948	CAPACITOR (470p)	ACE1039
	C949	ELECTROLYTIC CAPACIT	CEAS1R5M50
	C950	ELECTR. CAPACITOR	CEAS3R3M50
	C951	ELECTR. CAPACITOR	CEAS470M10
	C952	CERAMIC CAPACITOR	CKDYB122K50
	C953	CERAMIC CAPACITOR	CKDYB122K50
	C954	ELECTR. CAPACITOR	CEAS0R1M50
	C955	ELECTR. CAPACITOR	CEASR22M50
	C956	CERAMIC CAPACITOR	CKDYB122K50
	C957, 958	ELECTR. CAPACITOR	CEAS2R2M50
	C959	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C960	ELECTR. CAPACITOR	CEAS0R1M50
	C961, 962	CERAMIC CAPACITOR	CKDYB272K50
	C963	ELECTR. CAPACITOR	CEAS2R2M50
	C964	CERAMIC CAPACITOR	CKPUYB101K50
	C965	CERAMIC CAPACITOR	CKPUYB102K50
	C968	CERAMIC CAPACITOR	CCDSL101J50

RESISTORS

Mark	No.	Description	Parts No.
	VR901	VR (10k)	ACP1043
	VR902	VR (22k)	ACP1044
	VR903	VR (4.7k)	ACP1042
		Other resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	X901	CRYSTAL RESONATOR (7.2MHz)	ASS1042
	X902	CERAMIC RESONATOR (450kHz)	ATF1027
		ANTENNA TERMINAL 4－P	AKA1010
		AM RF TUNING BLOCK	AXX1012
		AM RF TUNING BLOCK	AXX1013
		2 Serial F. E. MODULE ASSEMBLY	AXQ1002

NOTE :
The 2 serial F. E. module assembly (AXQ1002) will be replaced upon periodical servicing. Therefore, individual parts in the assembly are not specified for service.

◉ MAIN ASSEMBLY (AWZ3719)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1001	OP－AMP IC	NJM4558M－D
	IC401	E－VR IC	M5222L
	IC402－405	OP－AMP IC	NJM4558M－D
	IC51	REGULATOR IC	NJM78M56FAS
	IC701	SYSTEM CONTROL MICROCOMPUTER	PD5170B
	Q1001	TRANSISTOR	XDC143ES
	Q1002	TRANSISTOR	2SC2458
	Q151	TRANSISTOR	2SA1048
	Q152	TRANSISTOR	2SC2458
	Q153－155	TRANSISTOR	2SC2458
	Q158	TRANSISTOR	2SC2458
	Q161	TRANSISTOR	XDC143ES
	Q401, 405	TRANSISTOR	2SC2458
	Q51－54	TRANSISTOR	2SC2458
	D1003－1006	DIODE	1SS252
	D101	DIODE	D3SBA20
	D102－107	DIODE	1SR139－400
	D151	DIODE	1SR139－400
	D152, 153	DIODE	1SS252
	D154, 155	ZENER DIODE	RD11ESB
	D3001	DIODE	1SS252
	D401, 402	DIODE	1SS252
	D405	ZENER DIODE	RD6.8ESB2
	D51	ZENER DIODE	RD10ESB2
	D52	ZENER DIODE	RD16ESB1
	D53	ZENER DIODE	RD6.2ESB
	D54	ZENER DIODE	RD16ESB1
	D55－58	DIODE	1SR139－400
	D59	ZENER DIODE	RD6.2ESB
	D60－64	DIODE	1SR139－400
	D701	DIODE	1SS252
	D702, 709	ZENER DIODE	RD6.2ESB2

RELAY

Mark	No.	Description	Parts No.
	RY151	RELAY	ASR1035

COILS

Mark	No.	Description	Parts No.
	L251, 252	COIL	ATH－133
	L701	AXIAL INDUCTOR	LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C103, 104	ELECTROLYTIC CAPACIT (5600p/50V)	ACH1145
	C105, 106	ELECTR. CAPACITOR	CEAS102M16
	C111, 112	CERAMIC CAPACITOR	CKCYF103Z50
	C113	ELECTR. CAPACITOR	CEAS222M25
	C151	ELECTR. CAPACITOR	CEAS330M25
	C152	ELECTR. CAPACITOR	CEAS221M16
	C153	ELECTR. CAPACITOR	CEAS100M50
	C154	ELECTR. CAPACITOR	CEAS221M16
	C2027	MYLAR FILM CAPACITOR	CQMA104K250

Mark	No.
	C251
	C300
	C401.
	C403
	C404
	C405
	C408
	C409
	C410
	C411
	C412
	C413
	C414
	C51
	C52
	C54
	C55
	C57
	C701
	C702
	C703
	C704
	C705-
	C901,

RESISTOR

Mark	No.
	R1007
	R101,
	R1011
	R1012
	R1013
	R151
	R158
	R163,
	R251,
	R52
	R53
	R54

No.	Description	Parts No.
936	ELECTR. CAPACITOR	CEAS4R7M50
937	CERAMIC CAPACITOR	CKDYF223Z50
938	ELECTR. CAPACITOR	CEAS010M50
939	CERAMIC CAPACITOR	CCDSL271J50
940	CERAMIC CAPACITOR	CKDYB222K50
941	CERAMIC CAPACITOR	CKDYF473Z50
942	ELECTR. CAPACITOR	CEAS2R2M50
943	ELECTR. CAPACITOR	CEAS470M10
944	ELECTR. CAPACITOR	CEAS0R1M50
945	ELECTR. CAPACITOR	CEANP2R2M50
946	ELECTR. CAPACITOR	CEAS470M25
947	CERAMIC CAPACITOR	CKDYF473Z50
948	CAPACITOR (470p)	ACE1039
949	ELECTROLYTIC CAPACIT	CEAS1R5M50
50	ELECTR. CAPACITOR	CEAS3R3M50
51	ELECTR. CAPACITOR	CEAS470M10
52	CERAMIC CAPACITOR	CKDYB122K50
53	CERAMIC CAPACITOR	CKDYB122K50
54	ELECTR. CAPACITOR	CEAS0R1M50
55	ELECTR. CAPACITOR	CEASR22M50
56	CERAMIC CAPACITOR	CKDYB122K50
57, 958	ELECTR. CAPACITOR	CEAS2R2M50
59	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
60	ELECTR. CAPACITOR	CEAS0R1M50
61, 962	CERAMIC CAPACITOR	CKDYB272K50
63	ELECTR. CAPACITOR	CEAS2R2M50
64	CERAMIC CAPACITOR	CKPUYB101K50
65	CERAMIC CAPACITOR	CKPUYB102K50
68	CERAMIC CAPACITOR	CCDSL101J50

ORS

No.	Description	Parts No.
901	VR (10k)	ACP1043
902	VR (22k)	ACP1044
903	VR (4.7k)	ACP1042
	Other resistors	RD1/8PM□□□J

S

No.	Description	Parts No.
01	CRYSTAL RESONATOR (7.2MHz)	ASS1042
02	CERAMIC RESONATOR (450kHz)	ATF1027
	ANTENNA TERMINAL 4−P	AKA1010
	AM RF TUNING BLOCK	AXX1012
	AM RF TUNING BLOCK	AXX1013
	2 Serial F. E. MODULE ASSEMBLY	AXQ1002

erial F. E. module assembly (AXQ1002) will be upon periodical servicing. Therefore, individual the assembly are not specified for service.

◉ MAIN ASSEMBLY (AWZ3719)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1001	OP−AMP IC	NJM4558M−D
	IC401	E−VR IC	M5222L
	IC402−405	OP−AMP IC	NJM4558M−D
	IC51	REGULATOR IC	NJM78M56FAS
	IC701	SYSTEM CONTROL MICROCOMPUTER	PD5170B
	Q1001	TRANSISTOR	XDC143ES
	Q1002	TRANSISTOR	2SC2458
	Q151	TRANSISTOR	2SA1048
	Q152	TRANSISTOR	2SC2458
	Q153−155	TRANSISTOR	2SC2458
	Q158	TRANSISTOR	2SC2458
	Q161	TRANSISTOR	XDC143ES
	Q401, 405	TRANSISTOR	2SC2458
	Q51−54	TRANSISTOR	2SC2458
	D1003−1006	DIODE	1SS252
	D101	DIODE	D3SBA20
	D102−107	DIODE	1SR139−400
	D151	DIODE	1SR139−400
	D152, 153	DIODE	1SS252
	D154, 155	ZENER DIODE	RD11ESB
	D3001	DIODE	1SS252
	D401, 402	DIODE	1SS252
	D405	ZENER DIODE	RD6.8ESB2
	D51	ZENER DIODE	RD10ESB2
	D52	ZENER DIODE	RD16ESB1
	D53	ZENER DIODE	RD6.2ESB
	D54	ZENER DIODE	RD16ESB1
	D55−58	DIODE	1SR139−400
	D59	ZENER DIODE	RD6.2ESB
	D60−64	DIODE	1SR139−400
	D701	DIODE	1SS252
	D702, 709	ZENER DIODE	RD6.2ESB2

RELAY

Mark	No.	Description	Parts No.
	RY151	RELAY	ASR1035

COILS

Mark	No.	Description	Parts No.
	L251, 252	COIL	ATH−133
	L701	AXIAL INDUCTOR	LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C103, 104	ELECTROLYTIC CAPACIT (5600p/50V)	ACH1145
	C105, 106	ELECTR. CAPACITOR	CEAS102M16
	C111, 112	CERAMIC CAPACITOR	CKCYF103Z50
	C113	ELECTR. CAPACITOR	CEAS222M25
	C151	ELECTR. CAPACITOR	CEAS330M25
	C152	ELECTR. CAPACITOR	CEAS221M16
	C153	ELECTR. CAPACITOR	CEAS100M50
	C154	ELECTR. CAPACITOR	CEAS221M16
	C2027	MYLAR FILM CAPACITOR	CQMA104K250
	C251	ELECTROLYTIC CAPACIT	CEANP4R7M100
	C3001	ELECTR. CAPACITOR	CEAS471M10
	C401, 402	ELECTR. CAPACITOR	CEAS010M50
	C403	CERAMIC CAPACITOR	CKSQYF104Z50
	C404	CERAMIC CAPACITOR	CKSQYB333K50
	C405	ELECTR. CAPACITOR	CEAS2R2M50
	C408	ELECTR. CAPACITOR	CEAS010M50
	C409	CERAMIC CAPACITOR	CKSQYB333K50
	C410	ELECTR. CAPACITOR	CEAS2R2M50
	C411	ELECTR. CAPACITOR	CEASR68M50
	C412	ELECTR. CAPACITOR	CEAS2R2M50
	C413	CERAMIC CAPACITOR	CKSQYB183K50
	C414	CERAMIC CAPACITOR	CKSQYF683Z50
	C51	ELECTROLYTIC CAPACIT	CEAS222M25
	C52	ELECTR. CAPACITOR	CEAS221M50
	C54	ELECTROLYTIC CAPACIT	CEHAQ470M16
	C55	ELECTROLYTIC CAPACIT	CEHAQ470M50
	C57	ELECTROLYTIC CAPACIT	CEHAQ470M16
	C701	CERAMIC CAPACITOR	CKSQYF473Z50
	C702	ELECTR. CAPACITOR	CEAS470M16
	C703	CERAMIC CAPACITOR	CKSQYF473Z50
	C704	CERAMIC CAPACITOR	CKDYF473Z50
	C705−708	CERAMIC CAPACITOR	CKSQYF473Z50
	C901, 902	CERAMIC CAPACITOR	CKSQYF104Z50

RESISTORS

Mark	No.	Description	Parts No.
	R1007	METAL FILM RESISTER	RN1/4PC1001F
	R101, 102	METAL OXIDE RESISTOR	RS2LMFR22J
	R1011	METAL FILM RESISTER	RN1/4PC5601F
	R1012	METAL FILM RESISTER	RN1/4PC6801F
	R1013	METAL FILM RESISTER	RN1/4PC2702F
	R151	CARBON FILM RESISTOR	RD1/2PM182J
	R158	CARBON FILM RESISTOR	RD1/8PM392J
	R163, 164	METAL OXIDE RESISTOR	RS2LMF331J
	R251, 252	CARBON FILM RESISTOR	RD1/4PMFL100J
	R52	CARBON FILM RESISTOR	RD1/8PM562J
	R53	CARBON FILM RESISTOR	RD1/8PM102J
	R54	METAL OXIDE RESISTOR	RS3LMF821J
		Other resistors	RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
		SPEAKER TERMINAL 4−P	AKE−109
	CN	PIN JACK 2P (REAR SPEAKERS)	AKB1185
	CN1	SOCKET (15P)	AKP1090
	CN15	CONNECTOR (4P)	KPC4
	CN2	SOCKET (15P)	AKP1092
	CN28	30P SOCKET	AKP1094
	TH1001	THERMISTOR	NTH2218F
	X701	CERAMIC RESONATOR (4MHz)	ASS1025

◉ SUB. POWER ASSEMBLY (AWZ3727)

RELAY

Mark	No.	Description	Parts No.
	RY51	RELAY	ASR1027

COIL & TRANSFORMER

Mark	No.	Description	Parts No.
	L51	FILTER	ATF−151
	T51	POWER TRANSFORMER	ATT1174

CAPACITORS

Mark	No.	Description	Parts No.
	C58, 59	CKA (0.01/AC400V)	ACG1003

RESISTOR

Mark	No.	Description	Parts No.
	R60	METAL OXIDE RESISTOR	RS2LMF680J

◉ FR. AMP ASSEMBLY (AWZ3734)

SEMICONDUCTOR

Mark	No.	Description	Parts No.
	IC201	AUDIO IC	STK4180−2G

CAPACITORS

Mark	No.	Description	Parts No.
	C201, 202	ELECTR. CAPACITOR	CEASR33M50
	C203, 204	CERAMIC CAPACITOR	CKCYB471K50
	C205−208	ELECTR. CAPACITOR	CEAS101M50
	C209, 210	ELECTR. CAPACITOR	CEAS100M50
	C211−214	CERAMIC CAPACITOR	CKCYF473Z50

RESISTORS

Mark	No.	Description	Parts No.
	R201, 202	CARBON FILM RESISTOR	RD1/8PM102J
	R203, 204	CARBON FILM RESISTOR	RD1/8PM563J
	R209, 210	CARBON FILM RESISTOR	RD1/4PMFL101J
		Other resistors	RD1/4PM□□□J

MIC ASSEMBLY

SEMICONDUCTOR

Mark	No.	Description	Parts No.
	IC501	OP－AMP IC	NJM4558M－D

CAPACITORS

Mark	No.	Description	Parts No.
	C501	CERAMIC CAPACITOR	CKSQYB681K50
	C502	ELECTR. CAPACITOR	CEJA010M50
	C503	CERAMIC CAPACITOR	CKSQYB471K50
	C504, 505	ELECTROLYTIC CAPACIT	CEJA100M25
	C506, 507	CERAMIC CAPACITOR	CKSQYF473Z50

RESISTORS

Mark	No.	Description	Parts No.
	VR501	VARIABLE RESISTOR (10k)	ACS1074
		Other resistors	RS1/10S☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
		JACK (MIC)	AKN1009

HEAD. P ASSEMBLY

RESISTORS

Mark	No.	Description	Parts No.
	R557, 558	METAL OXIDE RESISTOR	RS2LMF331J

OTHERS

Mark	No.	Description	Parts No.
	CN551	JACK (HEAD PHONE)	AKN1028

CONNECT ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC104	IC PROTECTOR	ICP－N75
	IC105, 106	IC PROTECTOR	ICP－N50
	IC107－109	IC PROTECTOR	ICP－N75

◉ DISPLAY ASSEMBLY (AWZ3705)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1001	CONTROL MICROCOMPUTER	PDG075A
	IC1003	LOGIC IC	SN74LS42NP
	Q1001	TRANSISTOR	XDC143ES
	Q1002	TRANSISTOR	2SC2458
	Q1003	TRANSISTOR	2SA1048
	Q701－703	TRANSISTOR	XDA143ES
	Q705, 706	TRANSISTOR	XDA143ES
	D1001	DIODE	1SS252
	D1002	ZENER DIODE	RD6.2ESB
	D1003	ZENER DIODE	RD4.7ESB2
	D1006－1014	DIODE	1SS252
	D1020	ZENER DIODE	RD6.2ESB
	D701	DIODE	1SS252
	D702－707	LED (RED)	AEL1108
	D708	LED(RED, AMBER)	AEL1115
	D709	LED (RED)	AEL1017
	D710, 711	LED (LIGHT GREEN)	AEL1058
	D720, 721	DIODE	1SS252

SWITCHES

Mark	No.	Description	Parts No.
	S1001－1003	SWITCH (BAND, M. SCAN, CLOCK ADJ.)	ASG1029
	S1005, 1006	SWITCH (MEMORY, SET)	ASG1029
	S1008－1011	SWITCH (LOCAL, WAKE UP, FREQ/STATION, REC)	ASG1029
	S1030	ROTARY ENCODER (TUNING JOG)	ASX1013
	S701－706	SWITCH (LD, VCR/DAT, PHONO, TAPE, TUNER, CD)	ASG1029
	S709－714	SWITCH (POWER STANDBY/ON, AI. A, SUPER P. BASS, AI. B, AI. MEMORY, AUDITION)	ASG1029

COIL

Mark	No.	Description	Parts No.
	L1001	AXIAL INDUCTOR	LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C1001	CERAMIC CAPACITOR	CKDYF473Z50
	C1002	CERAMIC CAPACITOR	CKDYF223Z50
	C1003	ELECTR. CAPACITOR	CEAS4R7M50
	C1004	ELECTR. CAPACITOR	CEAS010M50
	C1005	AUDIO FILM CAPACITOR	CFTXA224J50
	C1006	CERAMIC CAPACITOR	CKDYB102K50
	C1007	ELECTR. CAPACITOR	CEJA470M10
	C1008	AXIAL CERAMIC CAPACITOR	CKPUYF473Z16
	C1009	CAPACITOR (0.047/5.5)	ACH1135
	C1020, 1021	CERAMIC CAPACITOR	CKSQYF473Z50
	C1022	CERAMIC CAPACITOR	CKPUYB102K50
	C1025	CERAMIC CAPACITOR	CKPUYB101K50
	C1026	AXIAL CERAMIC CAPACITOR	CKPUYF473Z16
	C1027	CERAMIC CAPACITOR	CKSQYB103K50
	C1028－1030	CERAMIC CAPACITOR	CKSQYF473Z50
	C1031	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C705	CERAMIC CAPACITOR	CKPUYB101K50

RESISTORS

Mark	No.	Description	Parts No.
	VR1001	VARIABLE (10k)	ACS1048
	R1014, 1015	CHIP RESISTOR	RS1/10S563J
	R1031	RESISTOR ARRAY	RA8S473J
	R1032, 1033	CHIP RESISTOR	RS1/10S473J

Mark	No.	Description	Parts No.
	R1034, 1054	CHIP RESISTOR	RS1/10S000J
	R1055	CHIP RESISTOR	RS1/10S473J
	R1056	CHIP RESISTOR	RS1/10S000J
	R1060	CHIP RESISTOR	RS1/10S563J
	R1061	CHIP RESISTOR	RS1/10S102J
	R726	CHIP RESISTOR	RS1/10S151J
	R732	CHIP RESISTOR	RS1/10S000J
	R741, 777	CHIP RESISTOR	RS1/10S000J
		Other resistors	RD1/8PM□□□J

OTHERS

	CN27	30P SOCKET	AKP1095
		REMOTE RECEIVER UNIT	AXX1010
	V1001	FL TUBE	AAV1134
	X1001	CRYSTAL RESONATOR (8MHz)	ASS1015

◉ VR ASSEMBLY (AWZ3708)

SEMICONDUCTORS

	IC301	OP−AMP IC	NJM4558M−D
	IC302	MECHANISM DRIVER IC	TA7291S
	Q301, 302	TRANSISTOR	2SC2878
	Q303	TRANSISTOR	RN2203

CAPACITORS

	C301−304	ELECTR. CAPACITOR	CEAS2R2M50
	C305	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C311, 312	CERAMIC CAPACITOR	CKSQYF473Z50
	C321	ELECTR. CAPACITOR	CEAS101M16
	C323	CERAMIC CAPACITOR	CKDYX104M25

RESISTORS

	VR301	VARIABLE RESISTOR (100k × 2, 50k × 1)	ACX1064
	R301−303	CHIP RESISTOR	RS1/10S472J
	R305, 306	CHIP RESISTOR	RS1/10S102J
	R307, 308	CHIP RESISTOR	RS1/10S104J
		Other resistors	RD1/8PM□□□J

Mark	No.	Description	Parts No.

◉ REGULATOR ASSEMBLY (AWZ4009)

SEMICONDUCTORS

	IC101	REGULATOR IC	NJM78M05FAS
	IC102	REGULATOR IC	NJM79M05FA
	IC103, 104	REGULATOR IC	MC7812CT

CAPACITORS

	C108	ELECTR. CAPACITOR	CEAS220M16
	C109	ELECTROLYTIC CAPACIT	CEJA220M16
	C110, 111	ELECTR. CAPACITOR	CEAS220M16

4.2 SX-P720/HE

LIST OF ASSEMBLIES

Mark	No.	Description	Parts No.
		TUNER ASSEMBLY	AWE1226
◉		MAIN ASSEMBLY	AWZ3714
◉		SUB. POWER ASSEMBLY	AWZ3722
◉		FR. AMP ASSEMBLY	AWZ3730
		HEAD. P ASSEMBLY	
		CONNECT ASSEMBLY	
◉		DISPLAY ASSEMBLY	AWZ3701
◉		VR ASSEMBLY	AWZ3708
◉		REGULATOR ASSEMBLY	AWZ4009

TUNER ASSEMBLY (AWE1226)

The TUNER assembly of SX-P720 is the same as that of SX-P920.
Refer to page 34.

◉ MAIN ASSEMBLY (AWZ3714)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1001	OP-AMP IC	NJM4558M-D
	IC401	E-VR IC	M5222L
	IC402-405	OP-AMP IC	NJM4558M-D
	IC51	REGULATOR IC	NJM78M56FAS
	IC701	SYSTEM CONTROL MICROCOMPUTER	PD5170B
	Q1001	TRANSISTOR	XDC143ES
	Q1002	TRANSISTOR	2SC2458
	Q151	TRANSISTOR	2SA1048
	Q152-155	TRANSISTOR	2SC2458
	Q158	TRANSISTOR	2SC2458
	Q161	TRANSISTOR	XDC143ES
	Q401, 405	TRANSISTOR	2SC2458
	Q51-54	TRANSISTOR	2SC2458
	D1003-1006	DIODE	1SS252
	D101	DIODE	D3SBA20
	D102-107	DIODE	1SR139-400
	D151	DIODE	1SR139-400
	D152, 153	DIODE	1SS252
	D154, 155	ZENER DIODE	RD11ESB
	D3001	DIODE	1SS252
	D401, 402	DIODE	1SS252
	D405	ZENER DIODE	RD6.8ESB2
	D51	ZENER DIODE	RD10ESB2
	D52, 54	ZENER DIODE	RD16ESB1
	D60-64	DIODE	1SR139-400
	D701	DIODE	1SS252
	D702, 709	ZENER DIODE	RD6.2ESB2

RELAY

Mark	No.	Description	Parts No.
	RY151	RELAY	ASR1035

COILS

Mark	No.	Description	Parts No.
	L251, 252	COIL	ATH-133
	L701	AXIAL INDUCTOR	LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C103, 104	ELECTROLYTIC CAPACIT (3300/50V)	ACH1017
	C105, 106	ELECTR. CAPACITOR	CEAS102M16
	C111, 112	CERAMIC CAPACITOR	CKCYF103Z50
	C113	ELECTR. CAPACITOR	CEAS222M25
	C151	ELECTR. CAPACITOR	CEAS330M25
	C152	ELECTR. CAPACITOR	CEAS221M16
	C153	ELECTR. CAPACITOR	CEAS100M50
	C154	ELECTR. CAPACITOR	CEAS221M16
	C2027	MYLAR FILM CAPACITOR	CQMA104K250
	C251	ELECTROLYTIC CAPACIT	CEANP4R7M100
	C3001	ELECTR. CAPACITOR	CEAS471M10
	C401, 402	ELECTR. CAPACITOR	CEAS010M50
	C403	CERAMIC CAPACITOR	CKSQYF104Z50
	C404	CERAMIC CAPACITOR	CKSQYB333K50
	C405	ELECTR. CAPACITOR	CEAS2R2M50
	C408	ELECTR. CAPACITOR	CEAS010M50
	C409	CERAMIC CAPACITOR	CKSQYB333K50
	C410	ELECTR. CAPACITOR	CEAS2R2M50
	C411	ELECTR. CAPACITOR	CEASR68M50
	C412	ELECTR. CAPACITOR	CEAS2R2M50
	C413	CERAMIC CAPACITOR	CKSQYB183K50
	C414	CERAMIC CAPACITOR	CKSQYF683Z50
	C51	ELECTROLYTIC CAPACIT	CEAS222M25
	C52	ELECTR. CAPACITOR	CEAS221M50
	C54	ELECTROLYTIC CAPACIT	CEHAQ470M16
	C55	ELECTROLYTIC CAPACIT	CEHAQ470M50
	C57	ELECTROLYTIC CAPACIT	CEHAQ470M16
	C701	CERAMIC CAPACITOR	CKSQYF473Z50
	C702	ELECTR. CAPACITOR	CEAS470M16
	C703	CERAMIC CAPACITOR	CKSQYF473Z50
	C704	CERAMIC CAPACITOR	CKDYF473Z50
	C705-708	CERAMIC CAPACITOR	CKSQYF473Z50
	C901, 902	CERAMIC CAPACITOR	CKSQYF104Z50

RESISTORS

Mark	No.	Description	Parts No.
	R1007	METAL FILM RESISTER	RN1/4PC1001F
	R101, 102	METAL OXIDE RESISTOR	RS2LMFR22J

Mark	No.	Description	Parts No.
	R1011	METAL FILM RESISTER	RN1/4PC5601F
	R1012	METAL FILM RESISTER	RN1/4PC6801F
	R1013	METAL FILM RESISTER	RN1/4PC2702F
	R151	CARBON FILM RESISTOR	RD1/2PM182J
	R158	CARBON FILM RESISTOR	RD1/8PM392J
	R163	METAL OXIDE RESISTOR	RS2LMF221J
	R164	METAL OXIDE RESISTOR	RS2LMF331J
	R251, 252	CARBON FILM RESISTOR	RD1/4PMFL100J
	R52	CARBON FILM RESISTOR	RD1/8PM562J
	R53	CARBON FILM RESISTOR	RD1/8PM102J
	R54	METAL OXIDE RESISTOR	RS3LMF821J
		Other resistors	RS1/10S□□□J

OTHERS

		SPEAKER TERMINAL 4-P	AKE-109
	CN	PIN JACK 2P (REAR SPEAKERS)	AKB1185
	CN1	SOCKET (15P)	AKP1090
	CN2	SOCKET (15P)	AKP1092
	CN28	30P SOCKET	AKP1094
	TH1001	THERMISTOR	NTH2218F
	X701	CERAMIC RESONATOR (4MHz)	ASS1025

◉ SUB. POWER ASSEMBLY (AWZ3722)

SEMICONDUCTORS

	D53	ZENER DIODE	RD6.2ESB
	D55-58	DIODE	1SR139-400
	D59	ZENER DIODE	RD6.2ESB

RELAY

	RY51	RELAY	ASR1027

COIL & TRANSFORMER

	L51	FILTER	ATF-151
	T51	POWER TRANSFORMER	ATT1174

CAPACITORS

	C58, 59	CKA (0.01/AC400V)	ACG1003

Mark	No.	Description	Parts No.

RESISTOR

	R60	METAL OXIDE RESISTOR	RS2LMF680J

◉ FR. AMP ASSEMBLY (AWZ3730)

SEMICONDUCTOR

	IC201	AUDIO IC	STK4160-2G

CAPACITORS

	C201, 202	ELECTROLYTIC CAPACIT	CEASR15M50
	C203, 204	CERAMIC CAPACITOR	CKCYB471K50
	C205-208	ELECTR. CAPACITOR	CEAS101M50
	C209, 210	ELECTR. CAPACITOR	CEAS100M50
	C211-214	CERAMIC CAPACITOR	CKCYF473Z50

RESISTORS

	R201, 202	CARBON FILM RESISTOR	RD1/8PM102J
	R203, 204	CARBON FILM RESISTOR	RD1/8PM563J
	R209, 210	CARBON FILM RESISTOR	RD1/4PMFL101J
		Other resistors	RD1/4PM□□□J

HEAD. P ASSEMBLY

The HEAD. P assembly of SX-P720 is the same as that of SX-P920.
Refer to page 37.

CONNECT ASSEMBLY

The CONNECT assembly of SX-P720 is the same as that of SX-P920.
Refer to page 37.

◉ DISPLAY ASSEMBLY (AWZ3701)

SEMICONDUCTORS

	IC1001	CONTROL MICROCOMPUTER	PDG075A
	IC1003	LOGIC IC	SN74LS42NP
	Q1001	TRANSISTOR	XDC143ES
	Q1002	TRANSISTOR	2SC2458
	Q1003	TRANSISTOR	2SA1048
	Q701, 702	TRANSISTOR	XDA143ES
	Q705, 706	TRANSISTOR	XDA143ES
	D1001	DIODE	1SS252
	D1002	ZENER DIODE	RD6.2ESB
	D1003	ZENER DIODE	RD4.7ESB2
	D1006-1014	DIODE	1SS252
	D1020	ZENER DIODE	RD6.2ESB

Mark	No.	Description	Parts No.
	D701	DIODE	1SS252
	D702-707	LED (RED)	AEL1108
	D710, 711	LED (LIGHT GREEN)	AEL1058
	D712	LED (RED, AMBER)	AEL1115
	D720, 721	DIODE	1SS252

SWITCHES

Mark	No.	Description	Parts No.
	S1001-1003	SWITCH (BAND, M. SCAN, CLOCK ADJ.)	ASG1029
	S1005, 1006	SWITCH (MEMORY, SET)	ASG1029
	S1008-1011	SWITCH (LOCAL, WAKE UP, FREQ/STATION, REC)	ASG1029
	S1030	ROTARY ENCODER (TUNING JOG)	ASX1013
	S701-706	SWITCH (LD, VCR/DAT, PHONO, TAPE, TUNER, CD)	ASG1029
	S709, 710	SWITCH (POWER STANDBY/ON, AI. A)	ASG1029
	S712, 713	SWITCH (AI. B, AI, MEMORY)	ASG1029
	S715	SWITCH (SUPER P. BASS)	ASG1029

COIL

Mark	No.	Description	Parts No.
	L1001	AXIAL INDUCTOR	LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C1001	CERAMIC CAPACITOR	CKDYF473Z50
	C1002	CERAMIC CAPACITOR	CKDYF223Z50
	C1003	ELECTR. CAPACITOR	CEAS4R7M50
	C1004	ELECTR. CAPACITOR	CEAS010M50
	C1005	AUDIO FILM CAPACITOR	CFTXA224J50
	C1006	CERAMIC CAPACITOR	CKDYB102K50
	C1007	ELECTR. CAPACITOR	CEJA470M10
	C1008	AXIAL CERAMIC CAPACITOR	CKPUYF473Z16
	C1009	CAPACITOR (0.047/5.5)	ACH1135
	C1020, 1021	CERAMIC CAPACITOR	CKSQYF473Z50
	C1022	CERAMIC CAPACITOR	CKPUYB102K50
	C1025	CERAMIC CAPACITOR	CKPUYB101K50
	C1026	AXIAL CERAMIC CAPACITOR	CKPUYF473Z16
	C1027	CERAMIC CAPACITOR	CKSQYB103K50
	C1028-1030	CERAMIC CAPACITOR	CKSQYF473Z50
	C1031	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C705	CERAMIC CAPACITOR	CKPUYB101K50

RESISTORS

Mark	No.	Description	Parts No.
	VR1001	VARIABLE (10k)	ACS1048
	R1014, 1015	CHIP RESISTOR	RS1/10S563J
	R1031	RESISTOR ARRAY	RA8S473J
	R1032, 1033	CHIP RESISTOR	RS1/10S473J
	R1034, 1054	CHIP RESISTOR	RS1/10S000J
	R1055	CHIP RESISTOR	RS1/10S473J
	R1056	CHIP RESISTOR	RS1/10S000J
	R1060	CHIP RESISTOR	RS1/10S563J
	R1061	CHIP RESISTOR	RS1/10S102J
	R726	CHIP RESISTOR	RS1/10S151J
	R732, 741	CHIP RESISTOR	RS1/10S000J
	R777	CHIP RESISTOR	RS1/10S000J
		Other resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	CN27	30P SOCKET	AKP1095
		REMOTE RECEIVER UNIT	AXX1010
	V1001	FL TUBE	AAV1134
	X1001	CRYSTAL RESONATOR (8MHz)	ASS1015

◉ VR ASSEMBLY (AWZ3708)

The VR assembly of SX-P720 is the same as that of SX-P920.
Refer to page 38.

◉ REGULATOR ASSEMBLY (AWZ4009)

The REGULATOR assembly of SX-P720 is the same as that of SX-P920.
Refer to page 38.

5. ADJUSTMENTS

5.1 ADJUSTMENT OF THE FM TUNER SECTION

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 5−1.

Step No.	Adjustment title	FM SG (1kHz±75kHz dev.)		Reception frequency display	Adjustment location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Center adjustment	83	80	83.0MHz	L907	Adjust so that the DC voltage between the TP901 (Vref) and TP902 (T−meter) becomes 0V±50mV.
2	VCO adjustment	Non modulation	80	83.0MHz	VR903	Adjust so that the output of the TP905 (VCO) becomes 76kHz±0.5kHz.
3	TUNED IND. Lighting level	83 *1 (Stereo modulation)	18 (±3dB)	83.0MHz	VR902	Adjust so that the indicators of TUNED, STEREO IND. start to light up.

Note :
Perform steps 1 and 3 when the F. E. module assembly is replaced.
Confirm VCO (step 2) and adjust if improper.

*1 Stereo modulation : Main 1kHz L+R ±68.25Hz dev.
Pilot 19kHz ±6.75kHz dev.

5.2 ADJUSTMENT OF MW TUNER SECTION

- Set the mode selector to MW BAND.
- Connect the wiring as shown in Fig. 5−2.

Step No.	Adjustment title	AM SG (400Hz 30% Mod.)		Reception frequency display	Adjustment location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	Tracking adjustment *4	603 *1	Feeble input	603kHz *1	AM RF Tuning block antenna coil	Adjust so that the DC voltage between the TP904 (S-meter) and GND becomes at maximum level.
		1395 *3		1395kHz *3	TC901	
2	IFT adjustment *4	603 *1		603kHz *1	F904	
3	TUNED IND. Lighting level	999 *2	55 (±5dB)	999kHz *2	VR901	Adjust so that the indicators of TUNED IND. start to light up.

Note 1 :
Frequencies indicated in the above table are for the area using 9kHz step (SD : 9kHz, HE, HB, HEWZI)
For the area using 10kHz step (SD : 10kHz, KUC), frequencies should be as follows :
**1 : 600kHz*
**2 : 1000kHz*
**3 : 1400kHz*

Note 2 :
*Adjustment marked with " *4 " is only for HEWZI.*

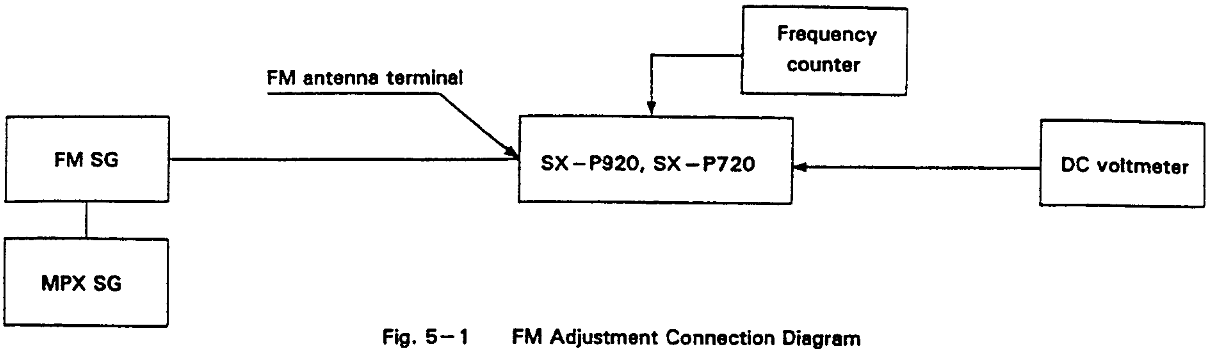

Frequency counter
FM antenna terminal
FM SG
SX-P920, SX-P720
DC voltmeter
MPX SG

Fig. 5−1 FM Adjustment Connection Diagram

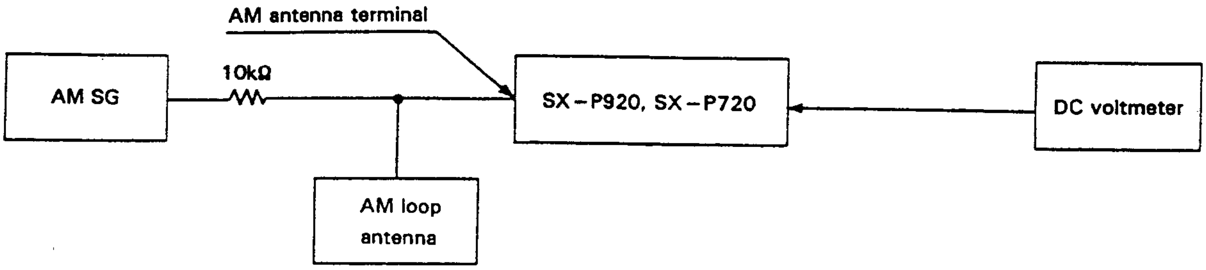

AM antenna terminal
10kΩ
AM SG
SX-P920, SX-P720
DC voltmeter
AM loop antenna

Fig. 5−2 MW Adjustment Connection Diagram

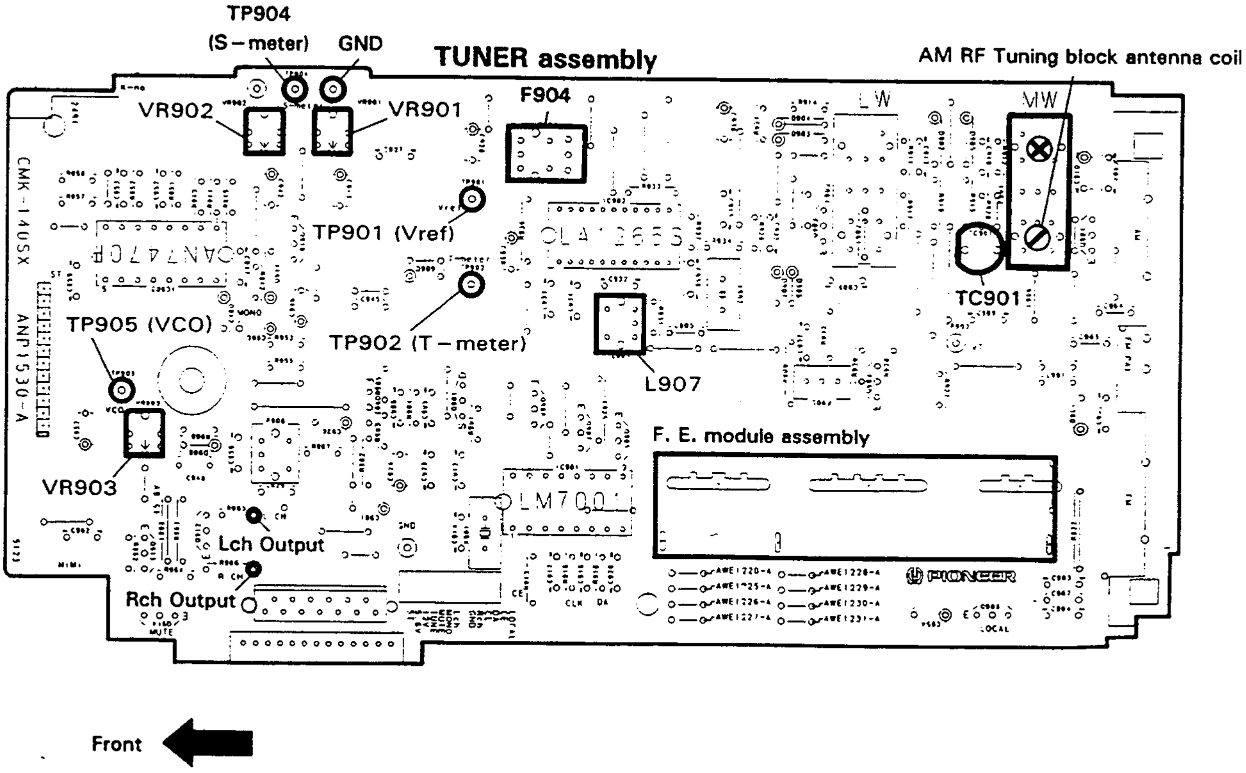

TP904 (S−meter)
GND
TUNER assembly
AM RF Tuning block antenna coil
VR902
VR901
F904
LW
MW
TP901 (Vref)
TP905 (VCO)
TP902 (T−meter)
L907
TC901
VR903
F. E. module assembly
Lch Output
Rch Output
Front

Fig. 5−3 Adjustment Points

6. IC INFORMATION

■ PDG075A (IC1001) : TUNER CONTROL MICRO-COMPUTER

● Pin Function

No.	Pin Name	I/O	Description	ACT
1	-	I	Switching Destination SX-P920, SX-P720 : L	
2	STEREO	I	STEREO Signal Input	L
3	TUNE	I	TUNED Signal Input	L
4	RESET	O	AMP MICRO-COMPUTER Reset Output	L
5	LOCAL	O	LOCAL Output	
6	TX MUTE	O	TUNER MUTE Output	
7	J/EX	I	Japan (H) / Export (L) Input	
8	LW Y/N	I	LW (H) / no LW (L) Input	
9	9k/10k	I	Switchig Channel Step Frequency 10 (H) / 9 (L) kHz Input	
10	FM MONO	O	FM MONO Output	
11	PLL CLK	O	PLL CLK Output (LM7001)	
12	PLL DATA	O	PLL DATA Output (LM7001)	
13	PLL CE	O	PLL CE Output (LM7001)	
14	S. CLK	I	System bus CLK Input	
15	S. DATA	I/O	System bus DATA Input/Output	
16	TX REQ/EN	O	System bus REQ Output	
		I	System bus ENABLE Input	
17	POWER ON/OFF	I	POWER IN ON (H) / OFF (L)	
18	KI0	I	Key Scan Input	
19	KI1	I	Key Scan Input	
20	KI2	I	Key Scan Input	
21	KI3	I	Key Scan Input	
22	-	I	Switching model type SX-P920, SX-P720 : L	
23	-	I	Not Used	
24	-	I	Not Used	
25	-	I	Not Used	
26	-	I	Not Used	
27	-	I	Not Used	
28	-	I	Not Used	
29	-	I	Not Used	
30	RST	I/O	RESET Input	L
31	EXTAL	I	Connected to ceramic oscillator (8MHz).	
32	XTAL	O		
33	Vss	GND	Connected to GND	
34	-	DP	Not Used	
35	-	DP	Not Used	
36	-	DP	Not Used	
37	-	DP	Not Used	
38	-	DP	Not Used	
39	-	DP	Not Used	
40	-	DP	Not Used	
41	-	DP	Not Used	
42	P1	DP	Segment Output	
43	P2	DP	Segment Output	
44	P3	DP	Segment Output	
45	P4	DP	Segment Output	
46	P5	DP	Segment Output	
47	P6	DP	Segment Output	
48	P7/KO0	DP	Segment Output/Key Scan Output	
49	P8/KO1	DP	Segment Output/Key Scan Output	
50	P9/KO2	DP	Segment Output/Key Scan Output	
51	P10/KO3	DP	Segment Output/Key Scan Output	
52	P11/KO4	DP	Segment Output/Key Scan Output	
53	P12/KO5	DP	Segment Output/Key Scan Output	
54	P13/KO6	DP	Segment Output/Key Scan Output	
55	P14	DP	Segment Output	

No.	Pin Name	I/O	Description	ACT
56	P15	DP	Segment Output	
57	P16	DP	Segment Output	
58	-	DP	Not Used	
59	-	DP	Not Used	
60	-	DP	Not Used	
61	-	DP	Not Used	
62	9G	DP	FL Grid Output (9G)	
63	8G	DP	FL Grid Output (8G)	
64	7G	DP	FL Grid Output (7G)	
65	6G	DP	FL Grid Output (6G)	
66	5G	DP	FL Grid Output (5G)	
67	4G	DP	FL Grid Output (4G)	
68	3G	DP	FL Grid Output (3G)	
69	2G	DP	FL Grid Output (2G)	
70	1G	DP	FL Grid Output (1G)	
71	VFDP	-	−30V FDP load power Input	
72	VDD	-	+5V Power Suplly Input	
73	-	-	Connected to Vdd.	
74	-	O	Not Used	
75	LS42N C	O	FUNCTION LED DRIVE IC (SN74LS42N) Control (C)	
76	LS42N B	O	FUNCTION LED DRIVE IC (SN74LS42N) Control (B)	
77	LS42N A	O	FUNCTION LED DRIVE IC (SN74LS42N) Control (A)	
78	50/60 IN	I	AC Input (50/60Hz)	
79	JOG2	I	JOG 2 Input	
80	JOG1	I	JOG 1 Input	

NOTE :

I : CMOS Input
O : CMOS Output
N : Nch Open Drain Output
P : Pch Open Drain Output
UN : Nch Open Drain Output with Pull-up Resistor
DP : Pch Open Drain Output with Pull-down Resistor
UI : CMOS Input with Pull-up Resistor
DI : CMOS Input with Pull-down Resistor

■ PD5170B (IC701) : AMPLIFIER CONTROL MICRO-COMPUTER

● Pin Function

<table>
<tr><th>No.</th><th>Pin Name</th><th>Description</th><th>I/O</th></tr>
<tr><td>1</td><td>+5V</td><td>+5V Power supply</td><td></td></tr>
<tr><td>2</td><td>GND</td><td>GND</td><td></td></tr>
<tr><td>3</td><td>VOL REF</td><td>A/D Reference Voltage Input</td><td>I</td></tr>
<tr><td>4</td><td>A. REC OUT MUTE</td><td>REC OUT Audio Output MUTE ON/OFF</td><td>O</td></tr>
<tr><td>5</td><td>N. C</td><td rowspan="4">Not Used</td><td></td></tr>
<tr><td>6</td><td>4052A</td><td>O</td></tr>
<tr><td>7</td><td>4052B</td><td>O</td></tr>
<tr><td>8</td><td>4052INH</td><td>O</td></tr>
<tr><td>9</td><td>$\overline{\text{LINE MUTE}}$</td><td>LINE MUTE $\overline{\text{ON}}$/OFF</td><td>O</td></tr>
<tr><td>10</td><td>P. BASS 1</td><td>SUPER P. BASS1 ON/$\overline{\text{OFF}}$</td><td>O</td></tr>
<tr><td>11</td><td>P. BASS 2</td><td>SUPER P. BASS2 ON/$\overline{\text{OFF}}$</td><td>O</td></tr>
<tr><td>12</td><td>VOL. POSI</td><td>MAIN VOL Position</td><td>I</td></tr>
<tr><td>13</td><td>VOL. DOWN</td><td rowspan="2">VOL UP/DOWN (TA 7291S) Control
<table>
<tr><th></th><th>Pin 14</th><th>Pin 13</th></tr>
<tr><td>UP</td><td>H</td><td>L</td></tr>
<tr><td>DOWN</td><td>L</td><td>H</td></tr>
<tr><td>STOP</td><td>L</td><td>L</td></tr>
</table></td><td>O</td></tr>
<tr><td>14</td><td>VOL. UP</td><td>O</td></tr>
<tr><td>15</td><td>R. VOL. ST</td><td rowspan="3">Not Used</td><td>O</td></tr>
<tr><td>16</td><td>R. VOL. CLK</td><td>O</td></tr>
<tr><td>17</td><td>R. VOL. DATA</td><td>O</td></tr>
<tr><td>18</td><td>E/R TUNER</td><td>System bus TUNER Enable / Request</td><td>I/O</td></tr>
<tr><td>19</td><td>E/R DAT</td><td>System bus DAT Enable / Request</td><td>I/O</td></tr>
<tr><td>20</td><td>E/R CT</td><td>System bus TAPE Enable / Request</td><td>I/O</td></tr>
<tr><td>21</td><td>E/R CD</td><td>System bus CD Enable / Request</td><td>I/O</td></tr>
<tr><td>22</td><td>E/R GEQ</td><td>System bus GEQ Enable / Request</td><td>I/O</td></tr>
</table>

<table>
<tr><th>No.</th><th>Pin Name</th><th>Description</th><th>I/O</th></tr>
<tr><td>23</td><td>SD</td><td>System bus DATA</td><td>I/O</td></tr>
<tr><td>24</td><td>SC</td><td>System bus CLOCK</td><td>O</td></tr>
<tr><td>25</td><td>N.C</td><td>Not Used</td><td>I</td></tr>
<tr><td>26</td><td>$\overline{\text{RMT IN}}$</td><td>Remocon Signal Input Port</td><td>I</td></tr>
<tr><td>27</td><td>GND</td><td>GND</td><td></td></tr>
<tr><td>28</td><td>$\overline{\text{RESET}}$</td><td>RESET PULSE Terminal</td><td>I</td></tr>
<tr><td>29</td><td>X IN</td><td rowspan="2">Connected to Ceramic resonator (4MHz).</td><td></td></tr>
<tr><td>30</td><td>X OUT</td><td></td></tr>
<tr><td>31</td><td>N. C</td><td>Not Used</td><td></td></tr>
<tr><td>32</td><td>GND</td><td>GND</td><td></td></tr>
<tr><td>33</td><td rowspan="3">Switching Destination</td><td rowspan="3">
<table>
<tr><th></th><th>Pin 33</th><th>Pin 34</th><th>Pin 35</th></tr>
<tr><td>SX-P720</td><td>H</td><td>L</td><td>H</td></tr>
<tr><td>SX-P920</td><td>L</td><td>H</td><td>H</td></tr>
</table></td><td>I</td></tr>
<tr><td>34</td><td>I</td></tr>
<tr><td>35</td><td>I</td></tr>
<tr><td>36</td><td></td><td rowspan="8">Not Used</td><td>I</td></tr>
<tr><td>37</td><td></td><td>I</td></tr>
<tr><td>38</td><td></td><td>I</td></tr>
<tr><td>39</td><td></td><td>I</td></tr>
<tr><td>40</td><td></td><td>I</td></tr>
<tr><td>41</td><td></td><td>O</td></tr>
<tr><td>42</td><td></td><td>O</td></tr>
<tr><td>43</td><td></td><td>O</td></tr>
<tr><td>44</td><td>FAN ERR</td><td>FAN ERR Terminal</td><td>I</td></tr>
<tr><td>45</td><td></td><td rowspan="3">Not Used</td><td>O</td></tr>
<tr><td>46</td><td></td><td>O</td></tr>
<tr><td>47</td><td></td><td>O</td></tr>
<tr><td>48</td><td>AD01. COTROL</td><td>AUDITION CONTROL</td><td>O</td></tr>
<tr><td>49</td><td></td><td>Not used</td><td>O</td></tr>
</table>

No.	Pin Name	Description	I/O
50		Not Used	O
51			O
52	LED AI. B	LED Control	O
53	LED AUDITION		O
54		Not Used	O
55	LED P-BASS2	LED Control	O
56	LED P-BASS1		O
57	LED AI. A		O
58	PHONE IN/OUT	Not Used	I
59		Not Used	O
60			O
61			O
62	RELAY A	Speaker Relay Port	O
63	POWER IND	Power Indicator Port	O
64	POWER RY	Power ON/OFF Relay Port	O

- When POWER is OFF, POWER RY RELAY A, LINE MUTE will be output at the "L" level, and A. REC. OUT MUTE will be output at the "H" level. Other I/O ports will be specified to input, and the output port will be ouput at the "L" level.

7. DISASSEMBLY

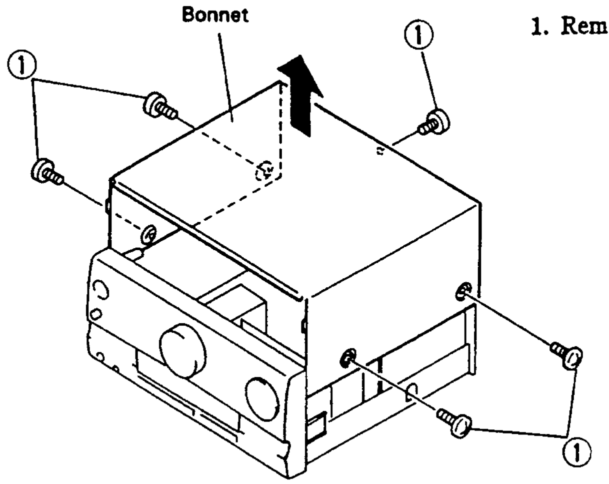


Fig. 1

1. Remove the Bonnet case. (Screw ① × 5)

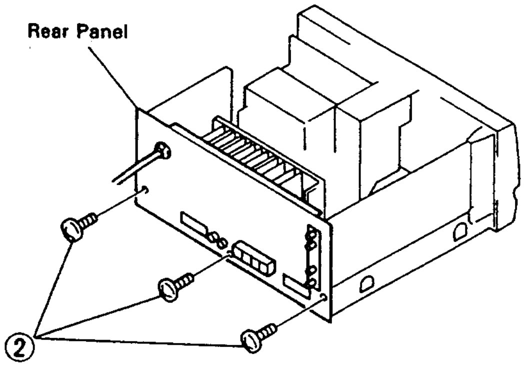

Rear Panel
②

Fig. 2

2. Remove the three screws ② from the rear panel.
   (Screw ② × 3)

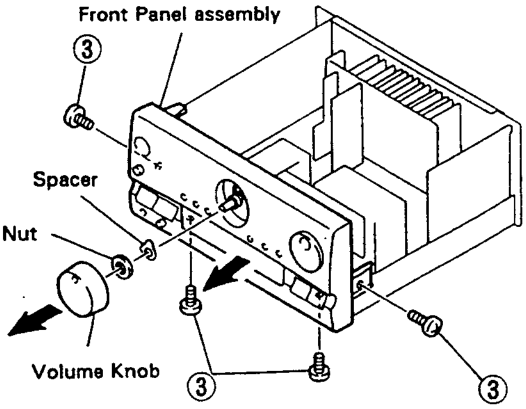

Front Panel assembly
③
Spacer
Nut
Volume Knob
③
③

Fig. 3

3. Remove the Volume knob, nut, spacer in sequence.
4. Remove the four screws ③ from the front panel assembly.
   Remove the front panel assembly.

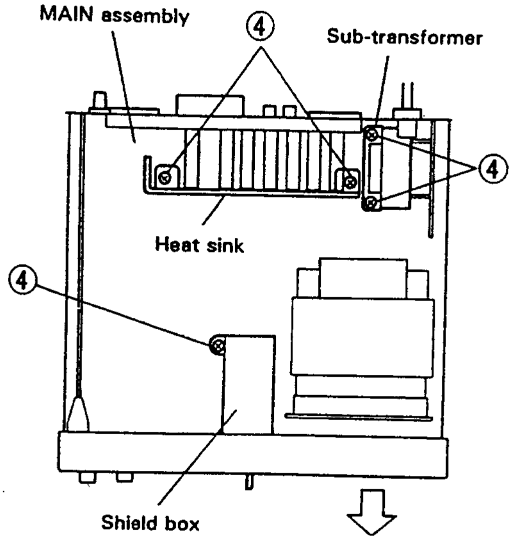

MAIN assembly
④
Sub-transformer
④
Heat sink
④
Shield box
Front

Fig. 4

5. Remove the five screws ④ from the MAIN assembly.
   - Heat sink × 2
   - Sub-transformer × 2
   - Shield box × 1
6. Remove the shield box.

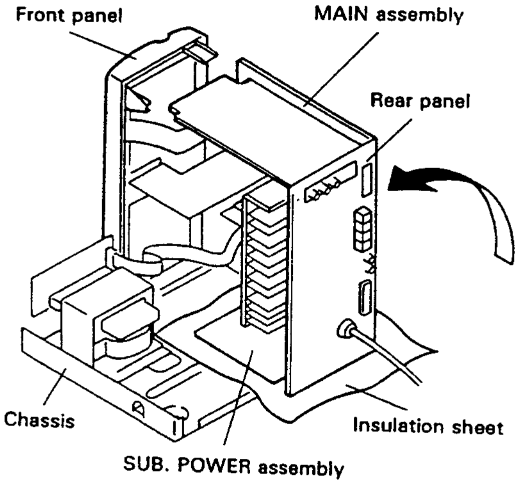

Front panel
MAIN assembly
Rear panel
Chassis
Insulation sheet
SUB. POWER assembly

Fig. 5

7. Lift the front panel assembly and the rear panel. Remove the MAIN assembly from the chassis, and stand it by placing the SUB. POWER assembly at the bottom. Insert the insulation sheet into the space between the SUB. POWER assembly and the chassis.

8. FOR SX－P920/HB, HEWZI AND SX－P720/HB, HEWZI TYPES

NOTES:

- *Part without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

8.1 CONTRAST OF MISCELLANEOUS PARTS (FOR SX－P920/HB AND HEWZI TYPES)

SX－P920/HB, HEWZI and SX－P920/HE have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		SX－P920/ HE type	SX－P920/ HB type	SX－P920/ HEWZI type	
◉	MAIN assembly	AWZ3719	AWZ3719	AWZ3720	
◉	SUB. POWER assembly	AWZ3727	AWZ3727	AWZ3723	
◉	FR. AMP assembly	AWZ3734	AWZ3734	AWZ3735	
	HEAD. P assembly	Non supply	Non supply	Non supply	＊1
◉	DISPLAY assembly	AWZ3705	AWZ3705	AWZ3706	
◉	VR assembly	AWZ3708	AWZ3708	AWZ3709	
	TUNER Assembly	AWE1226	AWE1226	AWE1225	
⚠	AC Power cord	ADG1019	ADG1084	ADG1012	
	Operating instructions (English, French, German, Italian)	ARC1306	....	....	
	Operating instructions (English, French)	ARE1211	ARE1211	....	
	Operating instructions (German, Italian)	ARC1305	....	ARC1305	

＊1 : The HEAD. P assemblies of HE and HB types are the same.

◉ MAIN ASSEMBLY (AWZ3720)

MAIN assembly (AWZ3720) and MAIN assembly (AWZ3719) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3719	AWZ3720	
	L251, 252	ATH－133	ATH－059	
	L2001, L2002	....	ATH－059	
	C111	CKCYF103Z50	CKCYB103K50	
	C704	CKDYF473Z50	CKCYF473Z50	
	C2007－C2009, C2011	....	CKCYB103K50	
	C2012, C2013	....	CCSQCH470J50	
	C2018	....	CQMA473K250	
	C2019	....	CKSQYB103K50	
	C2020, C2021	....	CCSQCH101J50	
	C2022, C2023	....	CKSQYB473K50	
	R251, R252	RD1/4PMFL100J	RD1/4PMFL101J	
	R2003	RS1/10S000J	....	

◉ FR. AMP ASSEMBLY (AWZ3735)

FR. AMP assembly (AWZ3735) and FR. AMP assembly (AWZ3734) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3734	AWZ3735	
	C2024, C2025	....	CCSQCH101J50	

HEAD. P ASSEMBLY (HEWZI type)

HEAD. P assembly (HEWZI type) and HEAD. P assembly (HE type) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		HE type	HEWZI type	
	C2501, C2502	....	CKSQYB473K50	

◉ DISPLAY ASSEMBLY (AWZ3706)

DISPLAY assembly (AWZ3706) and DISPLAY assembly (AWZ3705) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3705	AWZ3706	
	C1001	CKDYF473Z50	CKCYF473Z50	
	C1002	CKDYF223Z50	CKCYF223Z50	
	C1006	CKDYB102K50	CKCYB102K50	
	R1025	....	RS1/10S473J	
	R1033	RS1/10S473J	....	

◉ VR ASSEMBLY (AWZ3709)

VR assembly (AWZ3709) and VR assembly (AWZ3708) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3708	AWZ3709	
	C323	CKDYX104M25	CKCYX104M25	
	C2305, C2306	....	CCSQCH101J50	
	C2307, C2308	....	CCSQCH220J50	

◉ SUB. POWER ASSEMBLY (AWZ3723)

SUB. POWER assembly (AWZ3723) and SUB. POWER assembly (AWZ3727) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3727	AWZ3723	
	C2026	....	CQMA473K250	

TUNER ASSEMBLY (AWE1225)

TUNER assembly (AWE1225) and TUNER assembly (AWE1226) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWE1226	AWE1225	
	Q903, Q904	RN1203	....	
	Q906	RN2201	....	
	D902, D905–D907	HSS104–02	....	
	D903, D904	1SS85	....	
	L906	....	LAU330K	
	TC901	....	ACM–018	
	C908	....	CKDYF223Z50	
	C909	....	CKDYF103Z50	
	C913, C915	CKDYF223Z50	....	
	C919	CKDYF223Z50	CKDYF473Z50	
	C922	CKDYF223Z50	CKPUYF223Z50	
	C952, C953	CKDYB122K50	CKDYB102K50	
	C961, C962	CKDYB272K50	CKDYB392K50	
	C968	CCDSL101J50	CCDCH101J50	
	C969	....	CCDCH270J50	
	R911	RD1/8PM104J	....	
	R914, R915, R919	RD1/8PM681J	....	
	R917	RD1/8PM102J	....	
	R920	RD1/8PM103J	RD1/8PM472J	
	R921	RD1/8PM392J	....	
	R922	....	RD1/8PM680J	
	R924	RD1/8PM331J	RD1/8PM561J	
	R925	....	RD1/8PM221J	
	R955	RD1/8PM152J	RD1/8PM122J	
	R959, R960	RD1/8PM392J	RD1/8PM682J	
	Antenna terminal 4–P	AKA1010	....	
	Antenna terminal 2–P	....	AKA1012	
	2 Serial F. E. module assembly	AXQ1002	....	
	4 Serial F. E. module assembly	....	AXQ1004	
	AM RF Tuning block	AXX1012	....	
	AM RF Tuning block	AXX1013	....	
	AM RF Tuning block	....	AXX1014	

8.2 CONTRAST OF MISCELLANEOUS PARTS (FOR SX-P720/HB AND HEWZI TYPES)

SX-P720/HB, HEWZI and SX-P720/HE have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		SX-P720/ HE type	SX-P720/ HB type	SX-P720/ HEWZI type	
◉	MAIN assembly	AWZ3714	AWZ3714	AWZ3715	
◉	SUB. POWER assembly	AWZ3722	AWZ3722	AWZ3723	
◉	FR. AMP assembly	AWZ3730	AWZ3730	AWZ3731	
	HEAD. P assembly	Non supply	Non supply	Non supply	*1
◉	DISPLAY assembly	AWZ3701	AWZ3701	AWZ3702	
◉	VR assembly	AWZ3708	AWZ3708	AWZ3709	*2
	TUNER Assembly	AWE1226	AWE1226	AWE1225	*3
⚠	AC Power cord	ADG1019	ADG1084	ADG1012	
	Operating instructions (English, French, German, Italian)	ARC1306	....	....	
	Operating instructions (English, French)	ARE1211	ARE1211	....	
	Operating instructions (German, Italian)	ARC1305	....	ARC1305	

*1 : The HEAD. P assemblies of SX-P720/HE and HB types are the same as that of SX-P920/HE and HB types. The HEAD. P assembly of SX-P720/HEWZI type is the same as that of SX-P920/HEWZI types. Refer to page 55, "8.1 CONTRAST OF MISCELLANEOUS PARTS (FOR SX-P920/HB AND HEWZI TYPES)".

*2 : The VR assemblies of SX-P720/HE and HB types are the same as that of SX-P920/HE and HB types. The VR assembly of SX-P720/HEWZI type is the same as that of SX-P920/HEWZI type. Refer to page 55, "8.1 CONTRAST OF MISCELLANEOUS PARTS (FOR SX-P920/HB AND HEWZI TYPES)".

*3 : The TUNER assemblies of SX-P720/HE and HB types are the same as that of SX-P920/HE and HB types. The TUNER assembly of SX-P720/HEWZI type is the same as that of SX-P920/HEWZI type. Refer to page 56, "8.1 CONTRAST OF MISCELLANEOUS PARTS (FOR SX-P920/HB AND HEWZI TYPES)".

◉ MAIN ASSEMBLY (AWZ3715)

MAIN assembly (AWZ3715) and MAIN assembly (AWZ3714) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3714	AWZ3715	
	L251, 252	ATH-133	ATH-059	
	L2001, L2002	....	ATH-059	
	C704	CKDYF473Z50	CKCYF473Z50	
	C1023, C2012	....	CCSQCH470J50	
	C2007-C2009, C2011	....	CKCYB103K50	
	C2018	....	CQMA473K250	
	C2019	....	CKSQYB103K50	
	C2020, C2021, C2024, C2025	....	CCSQCH101J50	
	C2022, C2023	....	CKSQYB473K50	
	R251, R252	RD1/4PMFL100J	RD1/4PMFL101J	
	R2001, R2002	....	RS1/10S000J	

◉ SUB. POWER ASSEMBLY (AWZ3723)

SUB. POWER assembly (AWZ3723) and SUB. POWER assembly (AWZ3722) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3722	AWZ3723	
	C2026	....	CQMA473K250	

◉ FR. AMP ASSEMBLY (AWZ3731)

FR. AMP assembly (AWZ3731) and FR. AMP assembly (AWZ3730) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3730	AWZ3731	
	C2024, C2025	....	CCSQCH101J50	

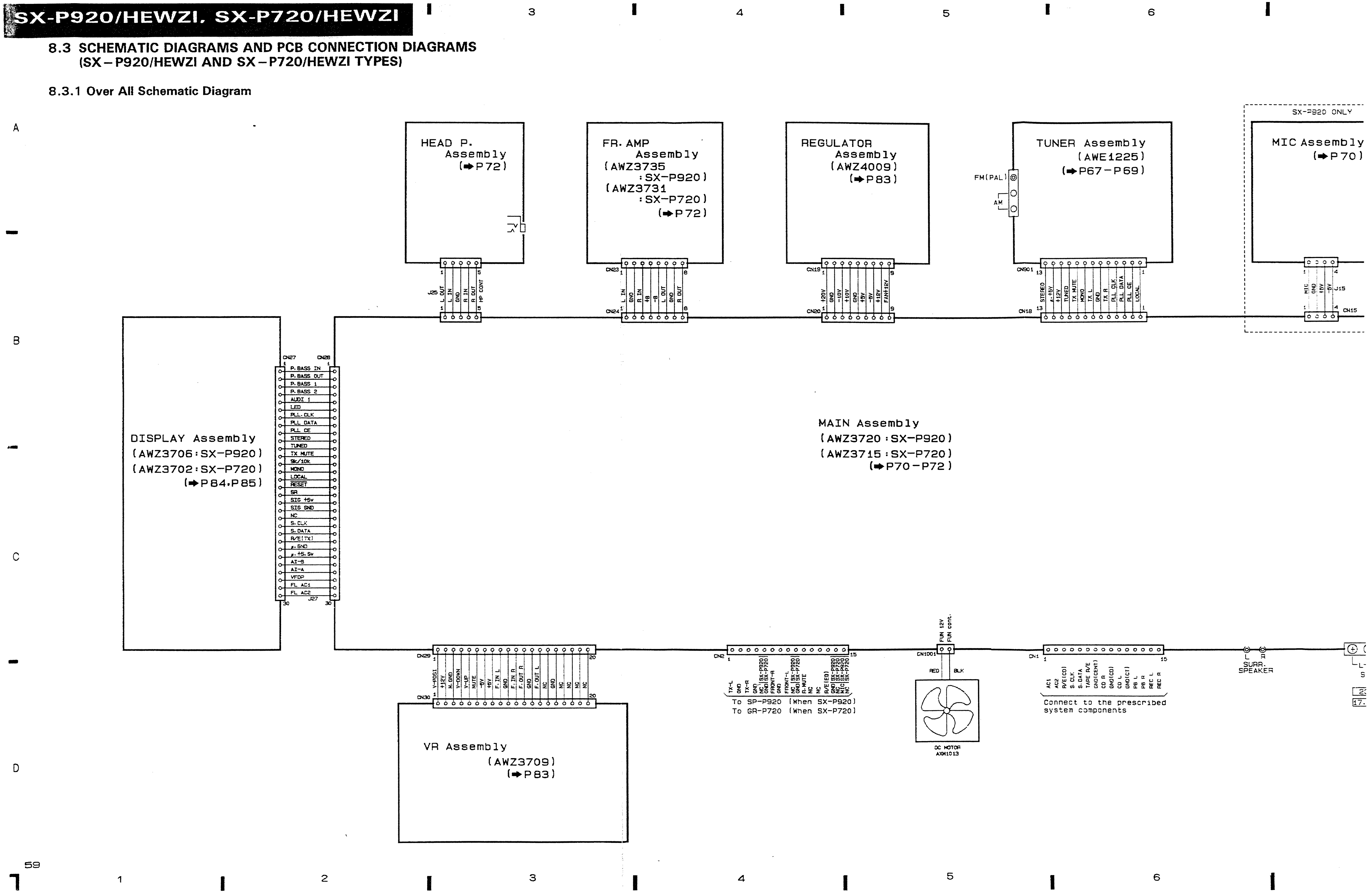
◉ DISPLAY ASSEMBLY (AWZ3702)

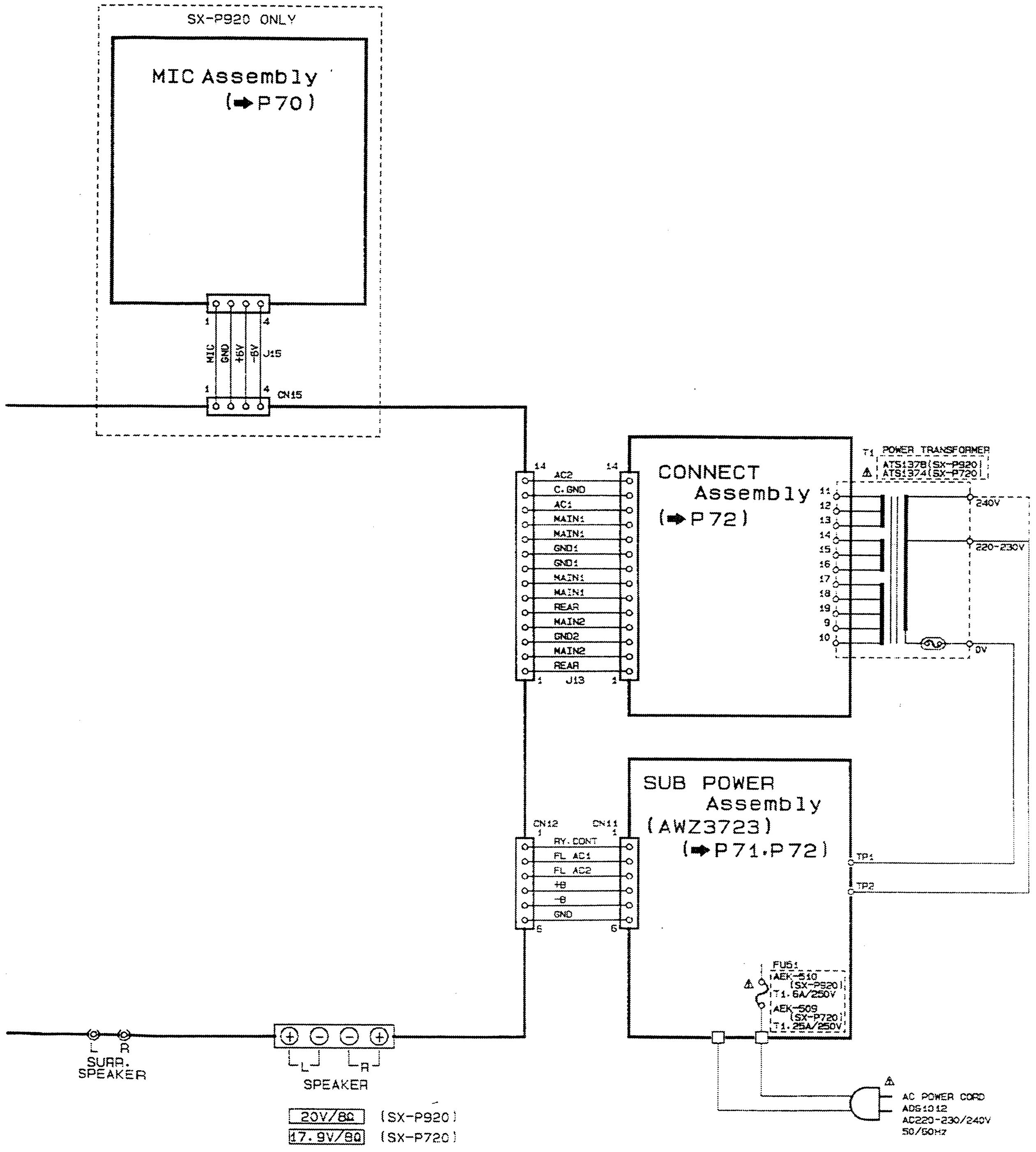
DISPLAY assembly (AWZ3702) and DISPLAY assembly (AWZ3701) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3701	AWZ3702	
	C1001	CKDYF473Z50	CKCYF473Z50	
	C1002	CKDYF223Z50	CKCYF223Z50	
	C1006	CKDYB102K50	CKCYB102K50	
	R1025	....	RS1/10S473J	
	R1033	RS1/10S473J	....	

8.3 SCHEMATIC DIAGRAMS AND PCB CONNECTION DIAGRAMS (SX – P920/HEWZI AND SX – P720/HEWZI TYPES)

8.3.1 Over All Schematic Diagram


3
4
5
6
A
B
C
D
1
2
3
4
5
6
HEAD P. Assembly (➡P72)
J25
L OUT
L IN
GND
R IN
R OUT
HP CONT
FR. AMP Assembly (AWZ3735 : SX-P920) (AWZ3731 : SX-P720) (➡P72)
CN23
CN24
L IN
GND
R IN
+B
-B
L OUT
GND
R OUT
REGULATOR Assembly (AWZ4009) (➡P83)
CN19
CN20
+20V
GND
-10V
+10V
GND
+5V
-5V
+12V
FAN+12V
TUNER Assembly (AWE1225) (➡P67-P69)
FM(PAL)
AM
CN901
CN18
STEREO
μ.+5V
+12V
TUNED
TX MUTE
MONO
TX L
GND
TX R
PLL CLK
PLL DATA
PLL CE
LOCAL
SX-P920 ONLY
MIC Assembly (➡P70)
J15
CN15
MIC
GND
+5V
-5V
DISPLAY Assembly (AWZ3706:SX-P920) (AWZ3702:SX-P720) (➡P84,P85)
CN27
CN28
J27
P.BASS IN
P.BASS OUT
P.BASS 1
P.BASS 2
AUDI 1
LED
PLL.CLK
PLL DATA
PLL CE
STEREO
TUNED
TX MUTE
9k/10k
MONO
LOCAL
RESET
SR
SIG +5v
SIG GND
NC
S.CLK
S.DATA
R/E(TX)
μ.GND
μ.+5.5v
AI-B
AI-A
VFDP
FL AC1
FL AC2
MAIN Assembly (AWZ3720 : SX-P920) (AWZ3715 : SX-P720) (➡P70-P72)
CN29
CN30
V-POSI
+12V
M.GND
V-DOWN
V-UP
MUTE
-5V
+5V
F.IN L
GND
F.IN R
F.OUT R
GND
F.OUT L
NC
GND
NC
NC
NC
NC
VR Assembly (AWZ3709) (➡P83)
CN2
TX-L
GND
TX-R
GND
NC (SX-P920) GND (SX-P720)
FRONT-R
GND
FRONT-L
NC (SX-P920) GND (SX-P720)
R.MUTE
NC
NC
R/E(EQ)
GND (SX-P920) NC (SX-P720)
MIC (SX-P920) NC (SX-P720)
To SP-P920 (When SX-P920)
To GR-P720 (When SX-P720)
CN1001
FUN 12V
FUN cont.
RED
BLK
DC MOTOR AXM1013
CN1
AC1
AC2
R/E(CD)
S.CLK
S.DATA
TAPE R/E
GND(CENT)
CD R
GND(CD)
CD L
GND(CT)
PB L
PB R
REC L
REC R
Connect to the prescribed system components
L
R
SURR. SPEAKER


SX-P920 ONLY
MIC Assembly
(➡P70)
MIC
GND
+6V
-6V
J15
CN15
14
AC2
C.GND
AC1
MAIN1
MAIN1
GND1
GND1
MAIN1
MAIN1
REAR
MAIN2
GND2
MAIN2
REAR
J13
CONNECT
Assembly
(➡P72)
T1 POWER TRANSFORMER
ATS1378(SX-P920)
ATS1374(SX-P720)
240V
220-230V
0V
SUB POWER
Assembly
(AWZ3723)
(➡P71.P72)
CN12
CN11
RY.CONT
FL AC1
FL AC2
+B
-B
GND
TP1
TP2
FU51
AEK-510
(SX-P920)
T1.6A/250V
AEK-509
(SX-P720)
T1.25A/250V
AC POWER CORD
ADG1012
AC220-230/240V
50/60Hz
L R
SURR.
SPEAKER
L
R
SPEAKER
20V/8Ω (SX-P920)
17.9V/8Ω (SX-P720)

1. RESISTORS:
Indicated in Ω, ¼W, ⅛W, ±5% tolerance unless otherwise noted k : kΩ,
M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M); ±20% tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
Indication without voltage is 50V except electrolytic capacitor.

3 VOLTAGE, CURRENT:
▭ : Signal voltage at (SX-P920 : 50W + 50W, SX-P720 : 40W + 40W, 8Ω) output (1kHz)
▭ : DC voltage (V) at no input signal
[a] and [b] in the circuit diagram describe the following :
a = SX-P920
b = SX-P720
None = SX-P920 and SX-P720
Value in ( ) is DC voltage at rated power.
⇦ mA : DC current at no input signal
mV : Signal voltage at FM 1kHz ±75kHz

4 OTHERS:
➡ : Signal route.
⊘ : Adjusting point
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
✱ marked capacitors and resistors have parts numbers.
▼ (RED) : TEST POINT
This is the basic schematic diagram, but the actual circuit may vary due to improvements in design

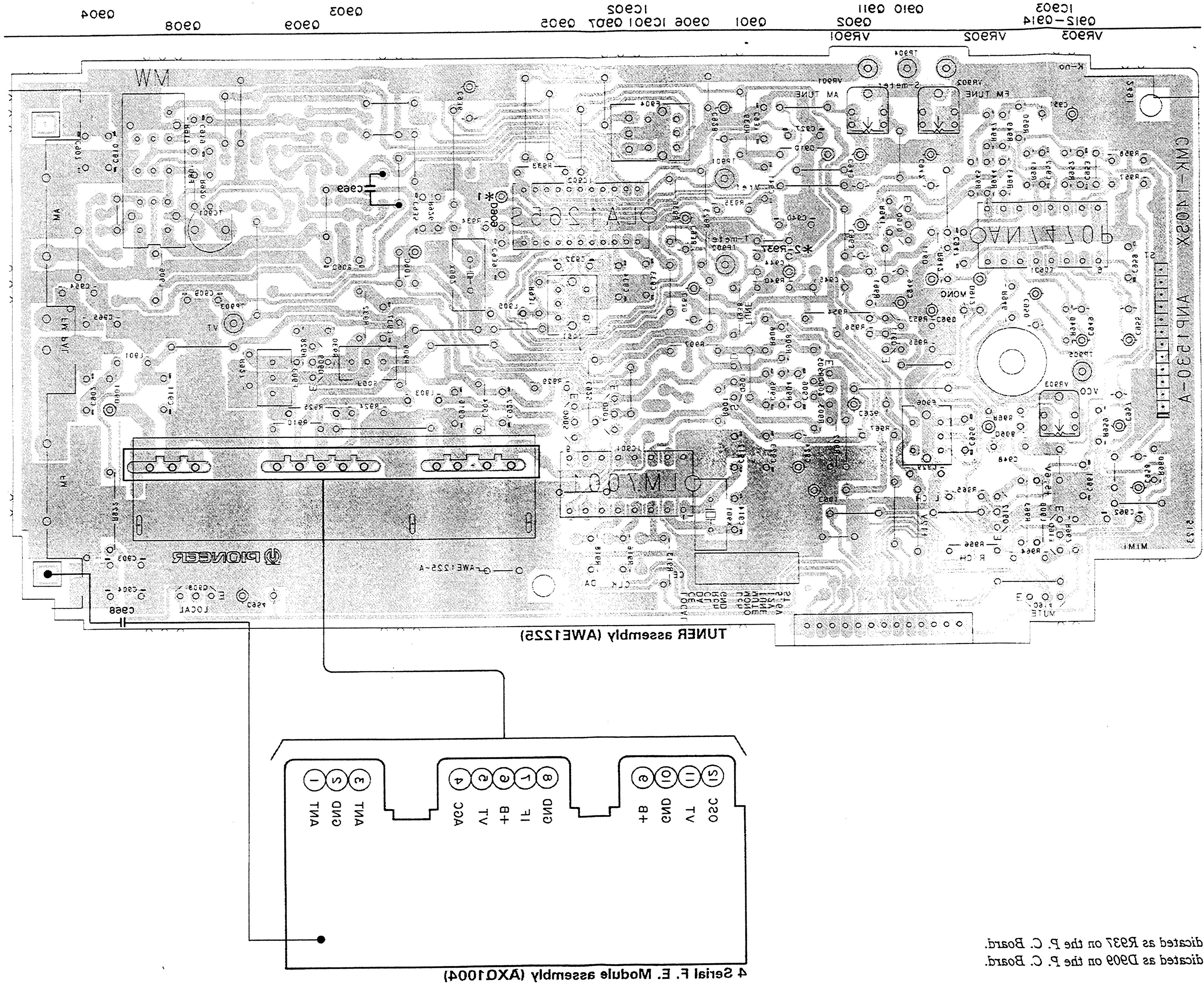
5. SWITCHES (The underline indicates the switch position)

DISPLAY Assembly

S701	LD
S702	VCR/DAT
S703	PHONO
S704	TAPE
S705	TUNER
S706	CD
S709	POWER STANDBY/ON
S710	AI. A
S711	SUPER P. BASS (SX-P920 ONLY)
S712	AI. B
S713	AI. MEMORY
S714	AUDITION (SX-P920 ONLY)
S715	SUPER P. BASS (SX-P720 ONLY)
S1001	BAND
S1002	M. SCAN
S1003	CLOCK ADJ
S1005	MEMORY
S1006	SET
S1008	LOCAL
S1009	WAKE UP
S1010	FREQ/STATION
S1011	REC
S1030	TUNING JOG

This P. C. B. connection diagram is viewed from the foil side.

8.3.2 TUNER assembly

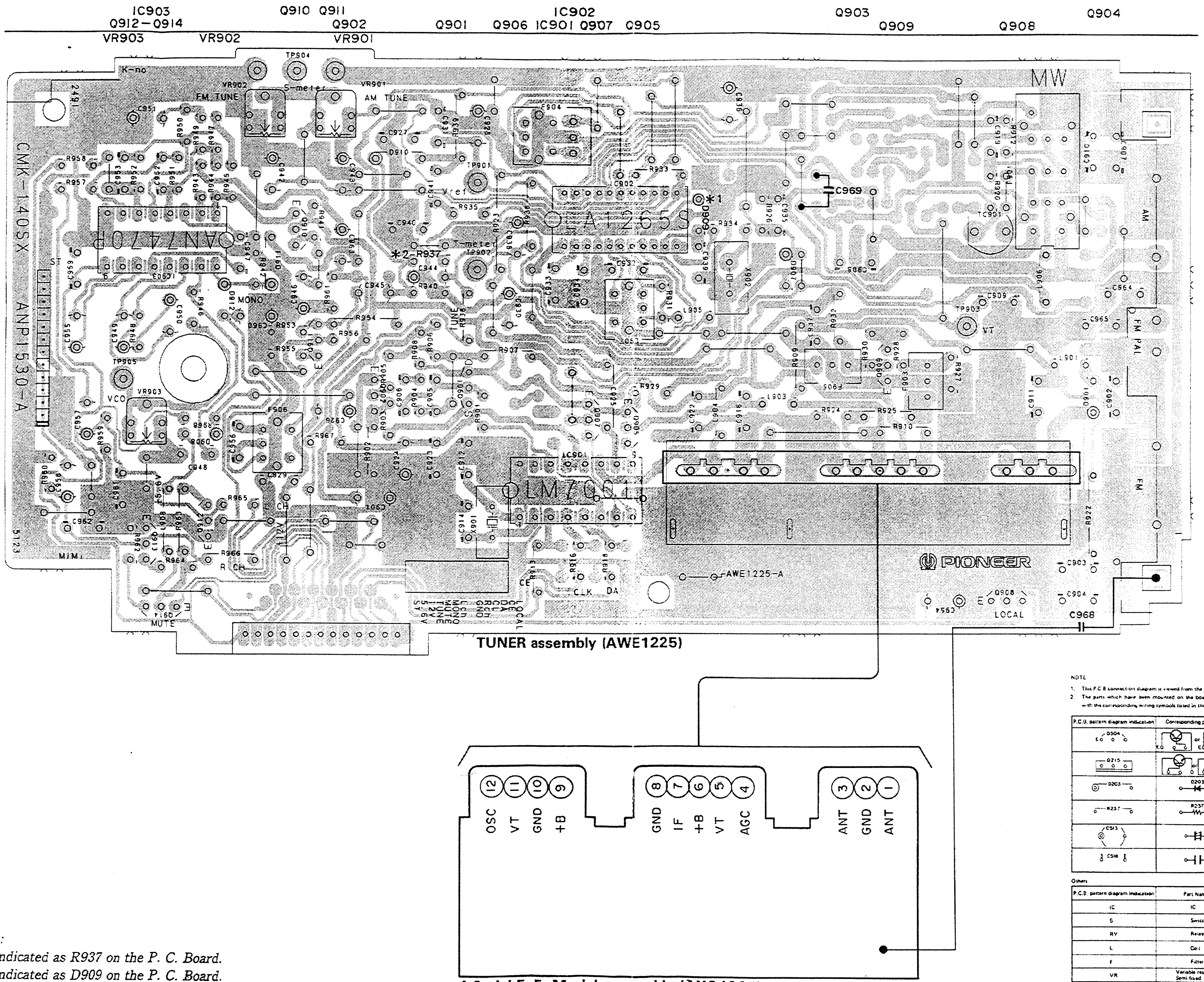

Q904
Q908
Q909
Q903
Q905
Q907
IC901
IC902
Q906
Q901
Q902
Q910
Q911
VR901
VR902
IC903
Q912–Q914
VR903
MW
FM
LM7001
PIONEER
AWE1225-A
1 ANT
2 GND
3 ANT
4 AGC
5 TV
6 B+
7 IF
8 GND
9 B+
10 GND
11 TV
12 OSC

TUNER assembly (AWE1225)

4 Serial F. E. Module assembly (AXQ1004)

NOTE :
*1 is indicated as R937 on the P. C. Board.
*2 is indicated as D909 on the P. C. Board.

This P. C. B connection diagram is viewed from the parts mounted side.


IC903
Q912–Q914
VR903
VR902
Q910 Q911
Q902
VR901
Q901
Q906 IC901
IC902
Q907
Q905
Q903
Q909
Q908
Q904
K-no
FM TUNE
AM TUNE
S-meter
T-meter
Vref
TP901
TP902
TP903
TP904
TP905
CMK-140SX
ANP1530-A
AN7470P
LA1265S
LM7001
C969
*1
*2 R937
ST
MONO
VCO
L CH
R CH
MUTE
CE
CLK
DA
MW
AM
FM
FM PAL
VT
LOCAL
C968
PIONEER
AWE1225-A
5123
12 OSC
11 VT
10 GND
9 +B
8 GND
7 IF
6 +B
5 VT
4 AGC
3 ANT
2 GND
1 ANT

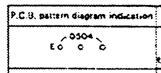
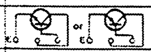
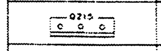
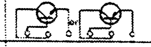
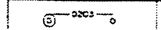
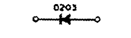
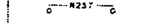
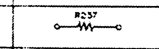
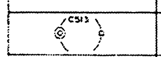
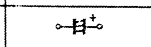
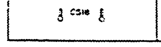
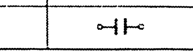
TUNER assembly (AWE1225)

4 Serial F. E. Module assembly (AXQ1004)

NOTE :
**1 is indicated as R937 on the P. C. Board.*
**2 is indicated as D909 on the P. C. Board.*

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

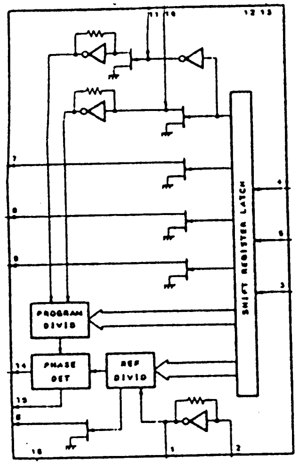
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarized)
		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

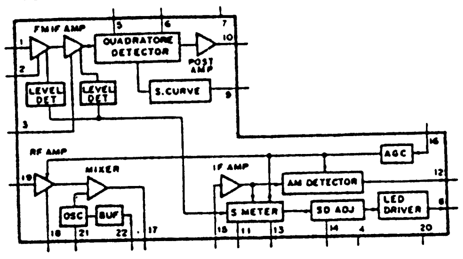
IC901 LM7001


SHIFT REGISTER LATCH
PROGRAM DIVID
PHASE DET
REF DIVID

IC901 (LM7001)

Pin No.	Voltage	Pin No.	Voltage
1	1.1	9	0.46
2	1.5	10	0 (1.7 when AM)
3	0	11	2.7
4	0	12	5.0
5	0	13	5.0
6	0	14	0.7
7	—	15	—
8	0	16	0

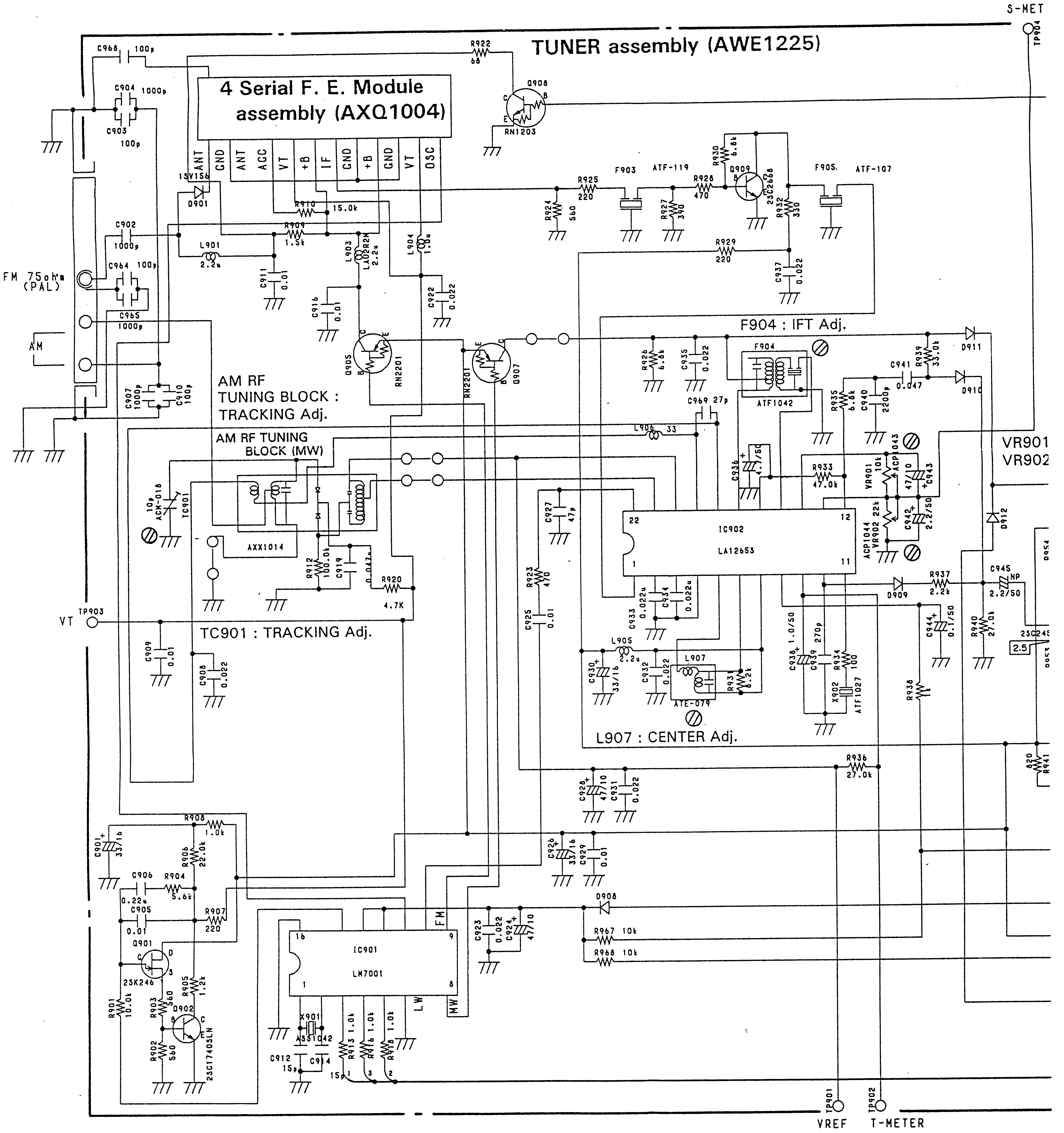
IC902 LA1265S


FM IF AMP
QUADRATURE DETECTOR
POST AMP
LEVEL DET
LEVEL DET
S.CURVE
RF AMP
MIXER
OSC
BUF
IF AMP
AGC
AM DETECTOR
S METER
SD ADJ
LED DRIVER

IC902 (LA1265S)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltag
1	2.3	10	2.8	17	0
2	2.3	11	1.5		12.0 (whe
3	2.3	12	1.5	18	0
4	0	13	1.4 (when MAX)		2.0 (whe
5	12.0	14	1.4 (when MAX)	19	0
6	12.0		0 (when AM)		2.0 (whe
7	12.0	15	2.3	20	3.8
8	0 (T)		1.1 (when AM)	21	3.8
	5.1 (D)	16	1.4	22	2.8
9	3.8				1.5 (whe

NOTE :
(T) when TUNE IND. is ON, (D) when TUNE IND. is OFF.

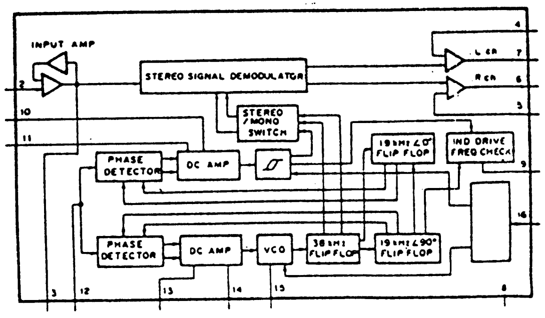

A
B
C
D
E
F
TUNER assembly (AWE1225)
4 Serial F. E. Module assembly (AXQ1004)
ANT GND ANT AGC VT +B IF GND +B GND VT OSC
S-MET
TP904
C968 100p
C904 1000p
C903 100p
R922 68
Q908 RN1203
1SV156 D901
R910 15.0k
R909 1.5k
C902 1000p
L901 2.2u
C964 100p
C965 1000p
FM 75ohm (PAL)
AM
C911 0.01
L903 LAL02R2K 2.2u
L904 1.0u
C916 0.01
C922 0.022
Q905 RN2201
Q907 RN2201
C907 1000p
C910 100p
AM RF TUNING BLOCK : TRACKING Adj.
AM RF TUNING BLOCK (MW)
ACM-018 10p TC901
AXX1014
R912 100.0k
C919
C921 0.047u
R920 4.7K
VT
TP903
C909 0.01
C908 0.022
TC901 : TRACKING Adj.
R925 220
R924 560
F903 ATF-119
R928 470
R927 390
R930 6.8k
Q909 2SC2668
R932 330
F905. ATF-107
R929 220
C937 0.022
F904 : IFT Adj.
F904 ATF1042
R926 6.8k
C935 0.022
C969 27p
L906 33
C941 0.047
R939 33.0k
D911
D910
R935 6.8k
C940 2200p
ACP1043
VR901
VR902
C936 4.7/50
R933 47.0k
VR901 10k
C943 47/10
C927 47p
IC902 LA1265S
22 12 1 11
ACP1044 VR902 22k
C942 2.2/50
D912
R923 470
C925 0.01
C933 0.022u
C934 0.022u
R937 2.2k
D909
C945 NP 2.2/50
C944 0.1/50
R940 27.0k
2SC245
2.5
L905 2.2u
C930 33/16
C932 0.022
L907
R931 8.2k
ATE-079
C938 1.0/50
C939 270p
R934 100
X902 ATF1027
R938 1k
L907 : CENTER Adj.
C928 47/10
C931 0.022
R936 27.0k
R941 820
C901 33/16
R908 1.0k
R906 22.0k
C906 0.22u
R904 5.6k
C905 0.01
R907 220
C926 33/16
C929 0.01
D908
R967 10k
R968 10k
C923 0.022
C924 47/10
Q901 2SK246
R901 10.0k
R903 560
R905 1.2k
Q902 2SC1740SLN
R902 560
IC901 LM7001
16 9 1 8
FM LW MW
X901 AS31042
C912 15p
C914 15p
R913 1.0k
R916 1.0k
R918 1.0k
TP901 VREF
TP902 T-METER

NOTE :
The TUNER assemblies of SX−P920 and SX−P720 types are the same.

Pin No.	Voltage	Pin No.	Voltage
10	2.8	17	0
11	1.5		12.0 (when AM)
12	1.5	18	0
13	1.4 (when MAX)		2.0 (when AM)
14	1.4 (when MAX)	19	0
	0 (when AM)		2.0 (when AM)
15	2.3	20	3.8
	1.1 (when AM)	21	3.8
16	1.4	22	2.8
			1.5 (when AM)

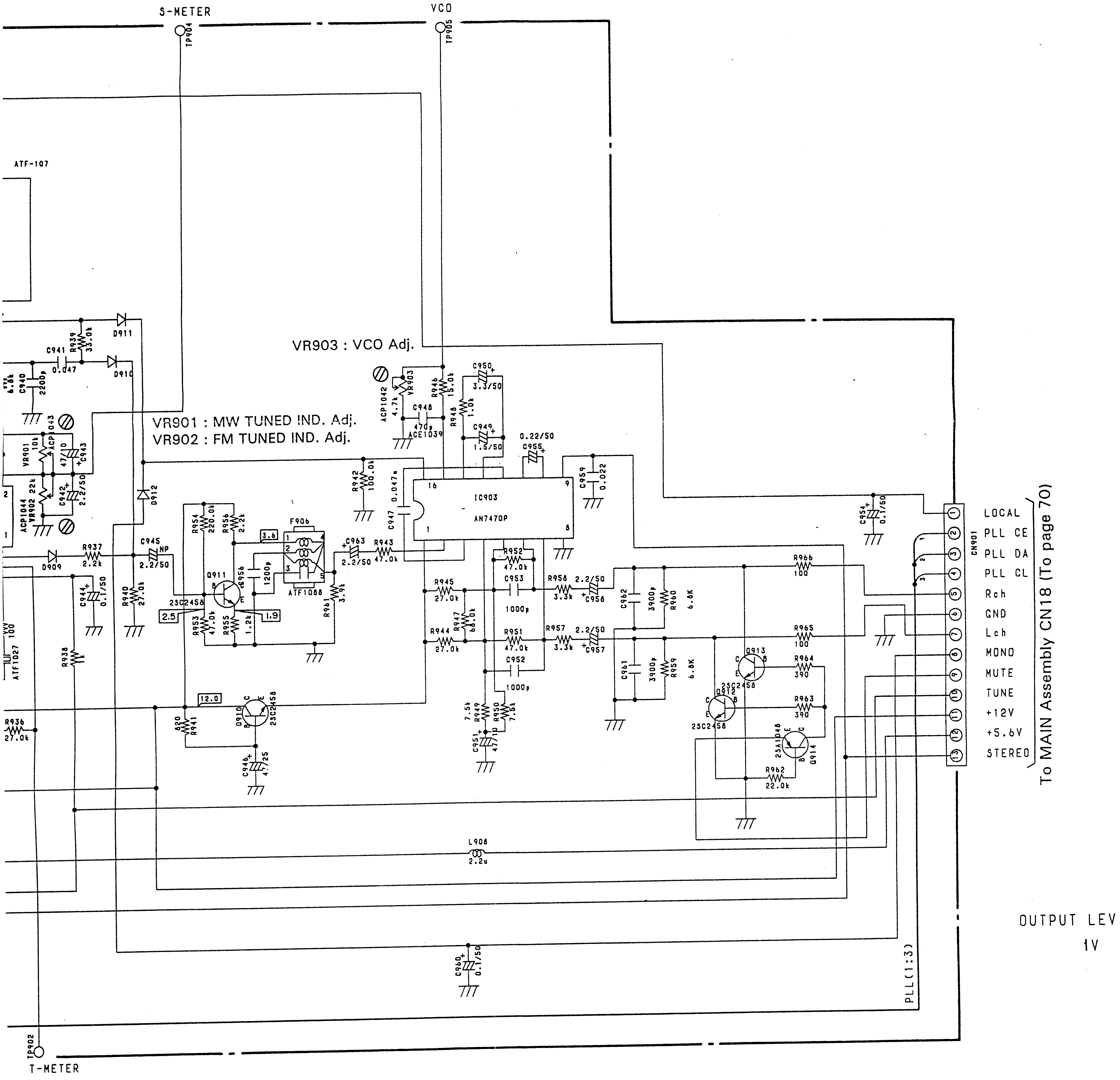
I, (D) when TUNE IND. is OFF.

IC903 AN7470P

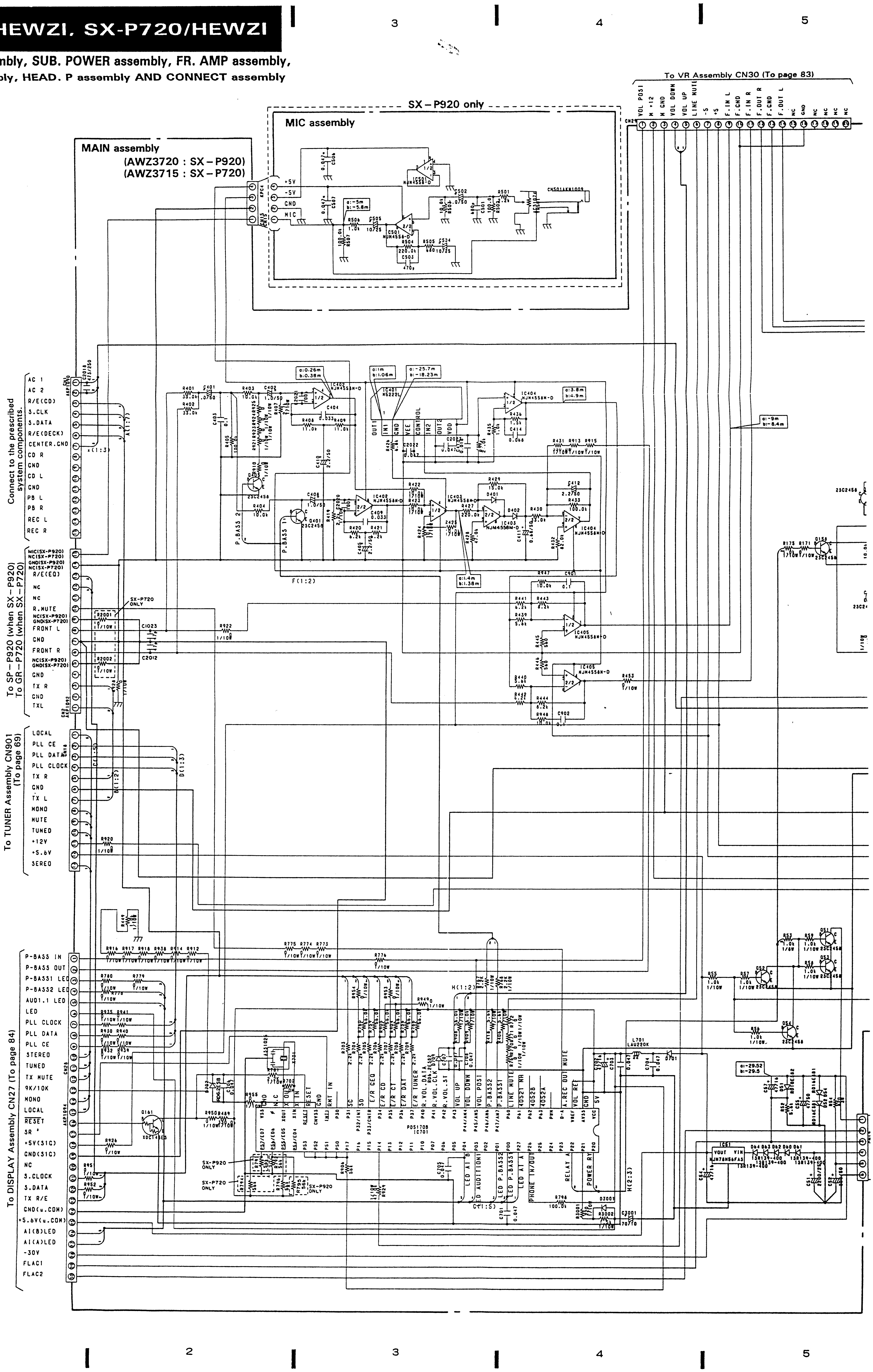

INPUT AMP
STEREO SIGNAL DEMODULATOR
STEREO /MONO SWITCH
Lch
Rch
PHASE DETECTOR
DC AMP
19kHz∠0° FLIP FLOP
IND DRIVE FREQ CHECK
PHASE DETECTOR
DC AMP
VCO
38kHz FLIP FLOP
19kHz∠90° FLIP FLOP
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

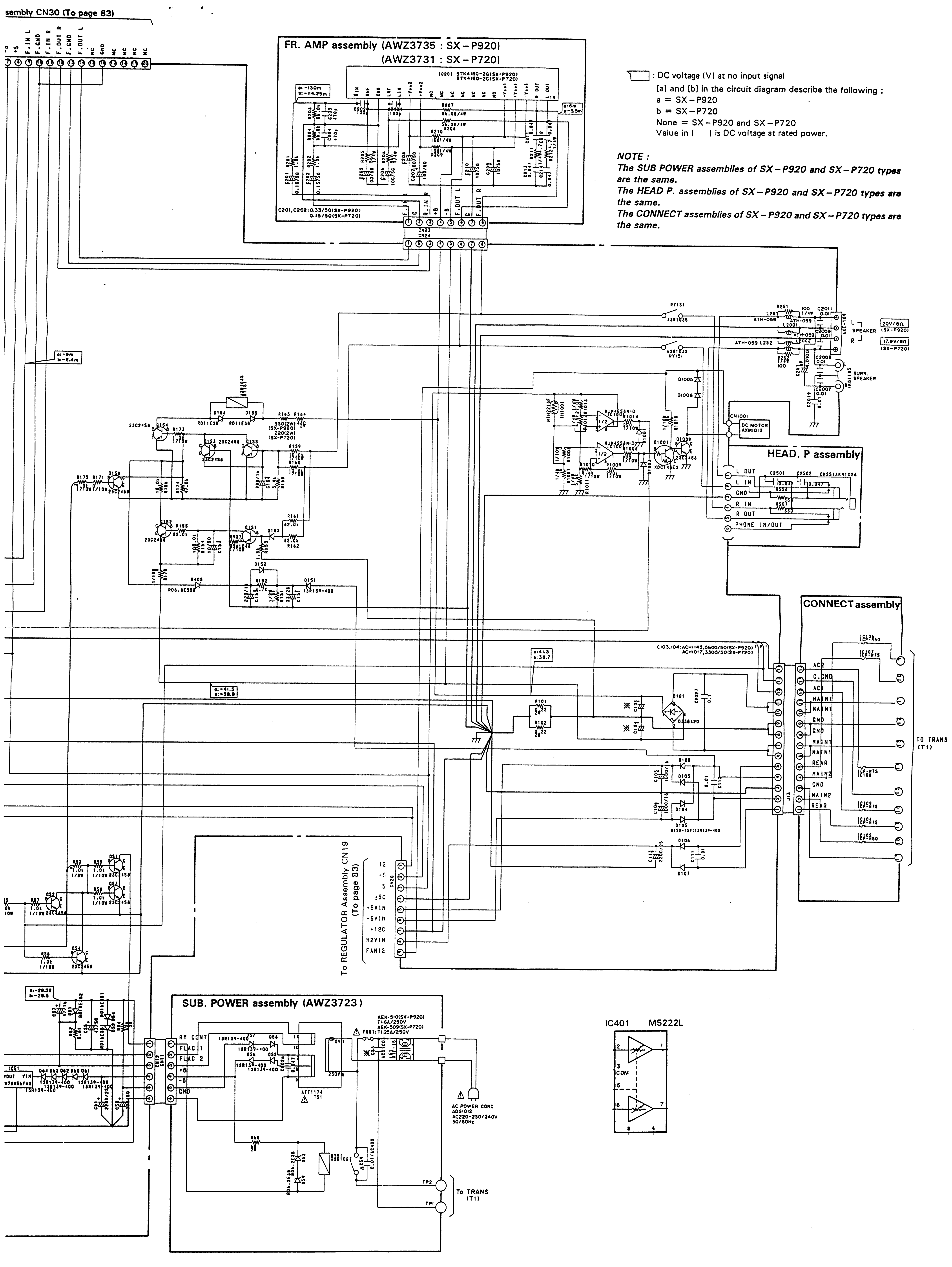
IC903 (AN7470P)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	11.2	9	4.9	15	3.2
2	2.6		0.6 (when STEREO)	16	0
3	6.1				11.4 (when AM)
4	8.9	10	2.6		
5	8.9	11	2.6		4.0 (when MONO)
6	3.9	12	2.6		
7	3.9	13			
8	0	14	2.6		


S-METER
TP904
VCO
TP905
ATF-107
D911
R939 33.0k
C941 0.047
D910
C940 2200p
6.8k
VR903 : VCO Adj.
VR901 : MW TUNED IND. Adj.
VR902 : FM TUNED IND. Adj.
ACP1043
VR901 10k
47/10
C943
C942 2.2/50
ACP1044 VR902 22k
D912
ACP1042 4.7k VR903
R946 15.0k
C950 3.3/50
C948 470p ACE1039
R948 1.0k
C949 1.5/50
0.22/50 C955
C959 0.022
R942 100.0k
C947 0.047M
IC903
AN7470P
16
9
1
8
C954 0.1/50
F906
ATF1088
3.6
R954 220.0k
R956 2.2k
C956 1200p
Q911
2SC2458
2.5
R953 47.0k
R955 1.2k
1.9
R961 3.9k
C963 2.2/50
R943 47.0k
D909
R937 2.2k
C945 NP 2.2/50
C944 0.1/50
R940 27.0k
R938
ATF1027
R936 27.0k
12.0
R941 820
Q910
2SC2458
C946 47/25
R952 47.0k
C953 1000p
R945 27.0k
R947 68.0k
R944 27.0k
R951 47.0k
C952 1000p
R949 7.5k
R950 7.5k
C951 47/10
R958 3.3k
2.2/50 C958
R957 3.3k
2.2/50 C957
C962 3900p
R960 6.8K
C961 3900p
R959 6.8K
R966 100
R965 100
Q913
2SC2458
R964 390
Q912
2SC2458
R963 390
2SA1048
Q914
R962 22.0k
L908 2.2u
C960 0.1/50
PLL(1:3)
CN901
① LOCAL
② PLL CE
③ PLL DA
④ PLL CL
⑤ Rch
⑥ GND
⑦ Lch
⑧ MONO
⑨ MUTE
⑩ TUNE
⑪ +12V
⑫ +5.6V
⑬ STEREO
To MAIN Assembly CN18 (To page 70)
OUTPUT LEV
1V
TP902
T-METER

8.3.3 MAIN assembly, SUB. POWER assembly, FR. AMP assembly, MIC assembly, HEAD. P assembly AND CONNECT assembly


3
4
5
To VR Assembly CN30 (To page 83)
VOL POSI
M +12
M GND
VOL DOWN
VOL UP
LINE MUTE
-5
+5
F.IN L
F.GND
F.IN R
F.OUT R
F.GND
F.OUT L
NC
GND
NC
NC
NC
NC
CN29
SX－P920 only
MIC assembly
MAIN assembly
(AWZ3720 : SX－P920)
(AWZ3715 : SX－P720)
+5V
-5V
GND
MIC
IC501
NJM4558-D
CN501AKN1009
Connect to the prescribed system components.
AC 1
AC 2
R/E(CD)
S.CLK
S.DATA
R/E(DECK)
CENTER.GND
CD R
GND
CD L
GND
PB L
PB R
REC L
REC R
To SP－P920 (when SX－P920)
To GR－P720 (when SX－P720)
MIC(SX-P920)
NC(SX-P720)
GND(SX-P920)
NC(SX-P720)
R/E(EQ)
NC
NC
R.MUTE
NC(SX-P920)
GND(SX-P720)
FRONT L
GND
FRONT R
NC(SX-P920)
GND(SX-P720)
GND
TX R
GND
TXL
SX-P720 ONLY
To TUNER Assembly CN901 (To page 69)
LOCAL
PLL CE
PLL DATA
PLL CLOCK
TX R
GND
TX L
MONO
MUTE
TUNED
+12V
+5.6V
SEREO
IC401
M5222L
IC402
NJM4558M-D
IC403
NJM4558M-D
IC404
NJM4558M-D
IC405
NJM4558M-D
P.BASS 2
P.BASS 1
To DISPLAY Assembly CN27 (To page 84)
P-BASS IN
P-BASS OUT
P-BASS1 LED
P-BASS2 LED
AUDI.1 LED
LED
PLL CLOCK
PLL DATA
PLL CE
STEREO
TUNED
TX MUTE
9K/10K
MONO
LOCAL
RESET
SR
+5V(SIC)
GND(SIC)
NC
S.CLOCK
S.DATA
TX R/E
GND(u.COM)
+5.6V(u.COM)
AI(B)LED
AI(A)LED
-30V
FLAC1
FLAC2
SX-P920 ONLY
SX-P720 ONLY
IC701
PD5170B
L701
LAU220K
IC51
NJM78M06FA5
2SC2458
1
2
3
4
5


sembly CN30 (To page 83)
FR. AMP assembly (AWZ3735 : SX-P920)
(AWZ3731 : SX-P720)
IC201 STK4160-2G(SX-P920)
STK4160-2G(SX-P720)
C201,C202:0.33/50(SX-P920)
0.15/50(SX-P720)
CN23
CN24
RY151
A3R1035
SPEAKER
20V/8Ω (SX-P920)
17.9V/8Ω (SX-P720)
SURR. SPEAKER
CN1001
DC MOTOR AXM1013
HEAD. P assembly
L OUT
L IN
GND
R IN
R OUT
PHONE IN/OUT
CONNECT assembly
C103,104:ACH1145,5600/50(SX-P920)
ACH1017,3300/50(SX-P720)
TO TRANS (T1)
To REGULATOR Assembly CN19 (To page 83)
SUB. POWER assembly (AWZ3723)
AEK-510(SX-P920) T1.6A/250V
AEK-509(SX-P720)
FUS1:T1.25A/250V
ATT1174 TS1
AC POWER CORD ADG1012
AC220-230/240V 50/60Hz
To TRANS (T1)
IC401 M5222L
COM

▭ : DC voltage (V) at no input signal

[a] and [b] in the circuit diagram describe the following :

a = SX-P920

b = SX-P720

None = SX-P920 and SX-P720

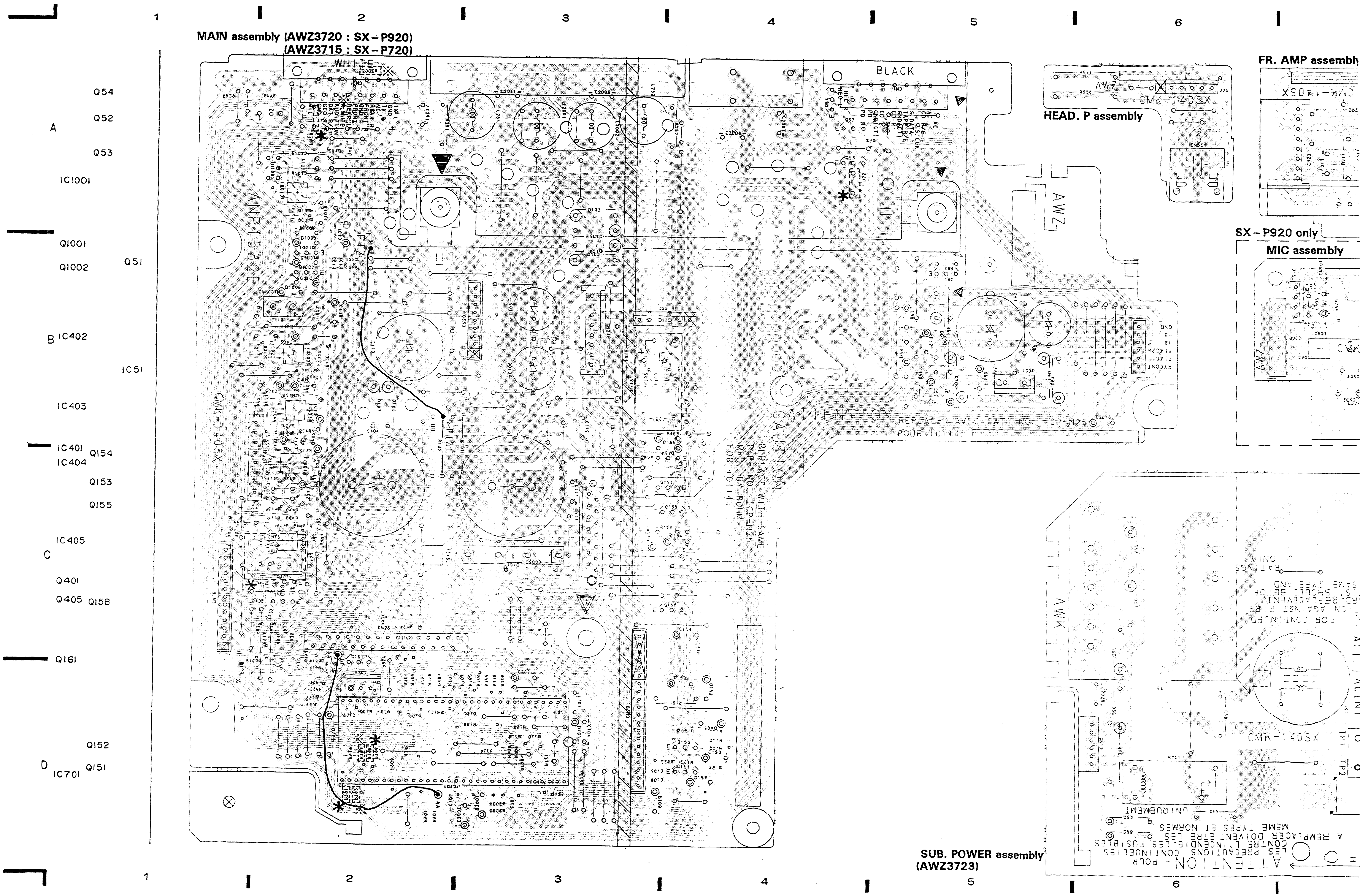
Value in ( ) is DC voltage at rated power.

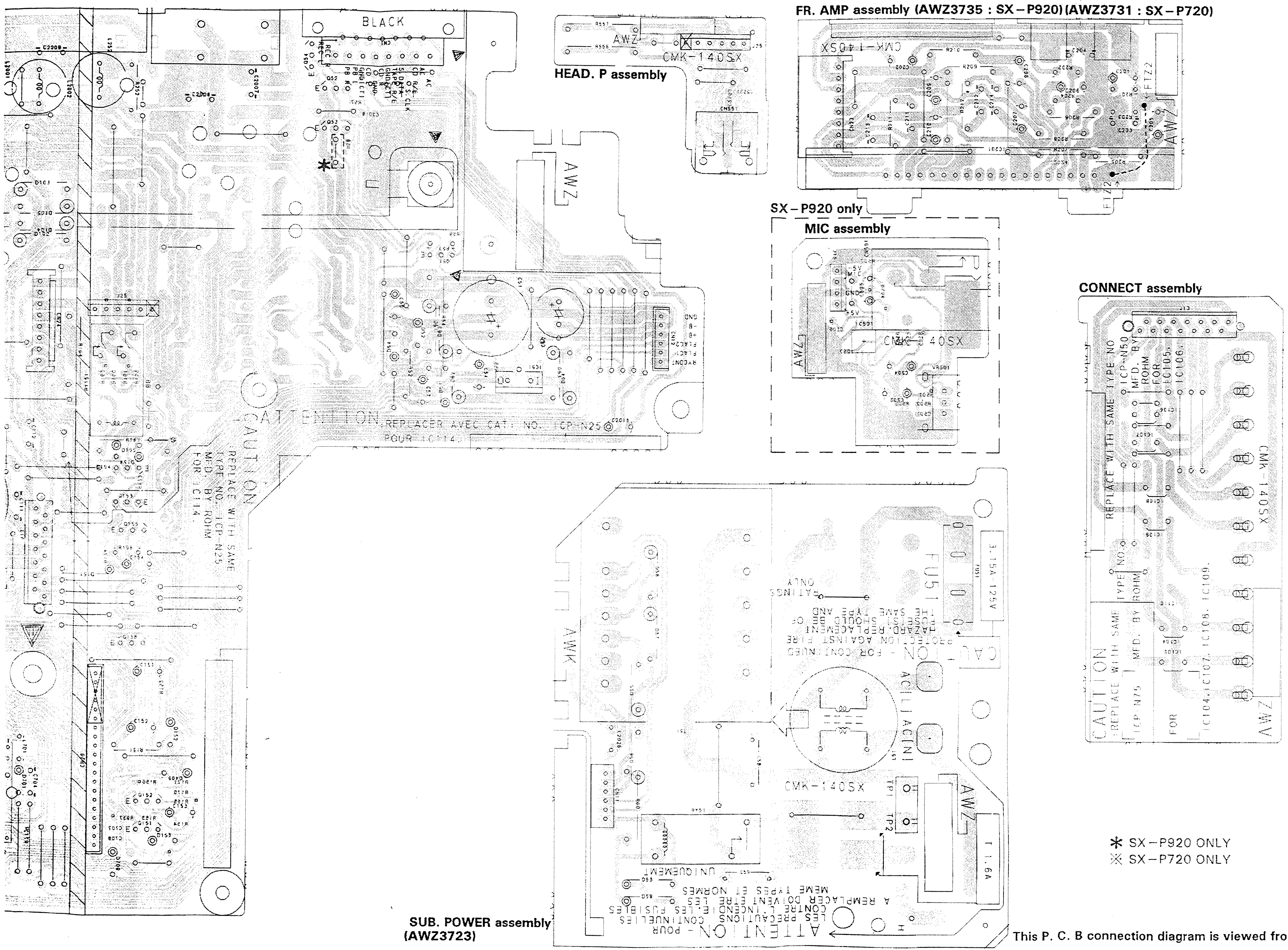
NOTE :

The SUB POWER assemblies of SX-P920 and SX-P720 types are the same.

The HEAD P. assemblies of SX-P920 and SX-P720 types are the same.

The CONNECT assemblies of SX-P920 and SX-P720 types are the same.


MAIN assembly (AWZ3720 : SX-P920)
(AWZ3715 : SX-P720)
HEAD. P assembly
FR. AMP assembly
SX-P920 only
MIC assembly
SUB. POWER assembly
(AWZ3723)
1
2
3
4
5
6
A
B
C
D
Q54
Q52
Q53
IC1001
Q1001
Q1002
Q51
IC402
IC51
IC403
IC401
IC404
Q154
Q153
Q155
IC405
Q401
Q405
Q158
Q161
Q152
IC701
Q151
WHITE
BLACK
ANP1532F
CMK-140SX
AWZ
AWK
CAUTION
REPLACE WITH SAME TYPE NO. ICP-N25 MFD. BY ROHM FOR IC114.
ATTENTION
REPLACER AVEC CAT. NO. ICP-N25 POUR IC114.
GND
FLAG2
FLAG1
BYCONT
UNIQUEMENT
CMK-140SX
TP1
TP2


BLACK
AWZ
CMK-140SX
AWK
CAUTION
REPLACE WITH SAME TYPE NO. TCP-N25 MFD. BY ROHM FOR IC114.
ATTENTION. REPLACER AVEC CAT. NO. TCP-N25 POUR IC114.
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES UNIQUEMENT.
FU51
3.15A 125V
T1.6A
AC(L) AC(N)
TP1
TP2
CAUTION REPLACE WITH SAME TYPE NO. TCP-N50 MFD. BY ROHM FOR IC105, IC106.
CAUTION REPLACE WITH SAME TYPE NO. TCP-N25 MFD. BY ROHM FOR IC104, IC107, IC108, IC109.
FLATZ2
GND
+5V
*

SUB. POWER assembly (AWZ3723)

HEAD. P assembly

FR. AMP assembly (AWZ3735 : SX-P920) (AWZ3731 : SX-P720)

SX-P920 only

MIC assembly

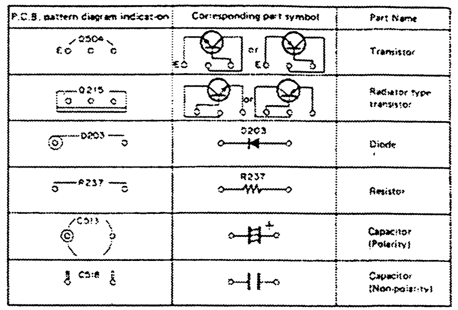
CONNECT assembly

* SX-P920 ONLY
※ SX-P720 ONLY

This P. C. B connection diagram is viewed from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

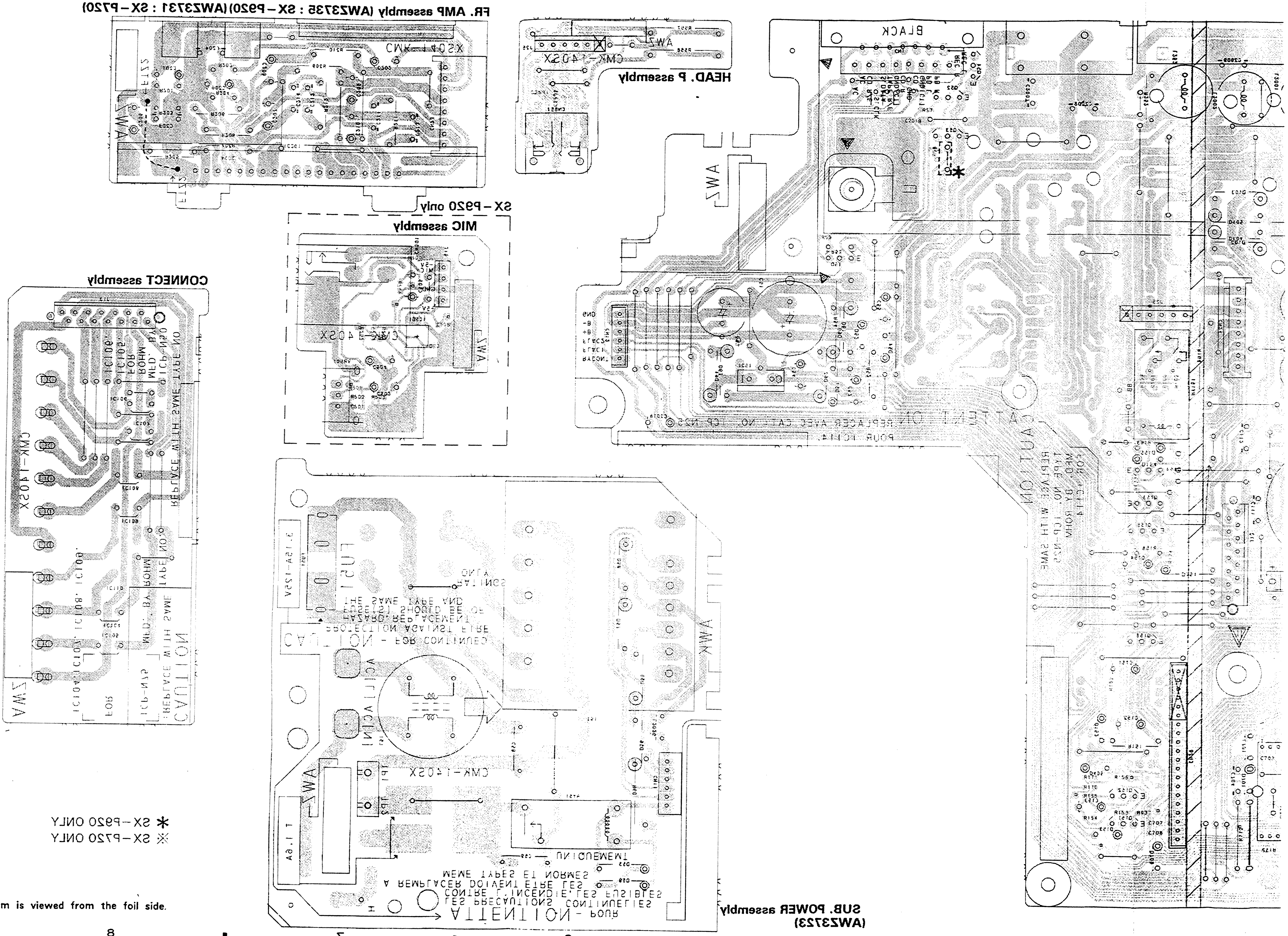


P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q204		Transistor
Q215		Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513		Capacitor (Polarity)
C518		Capacitor (Non-polarity)

Others

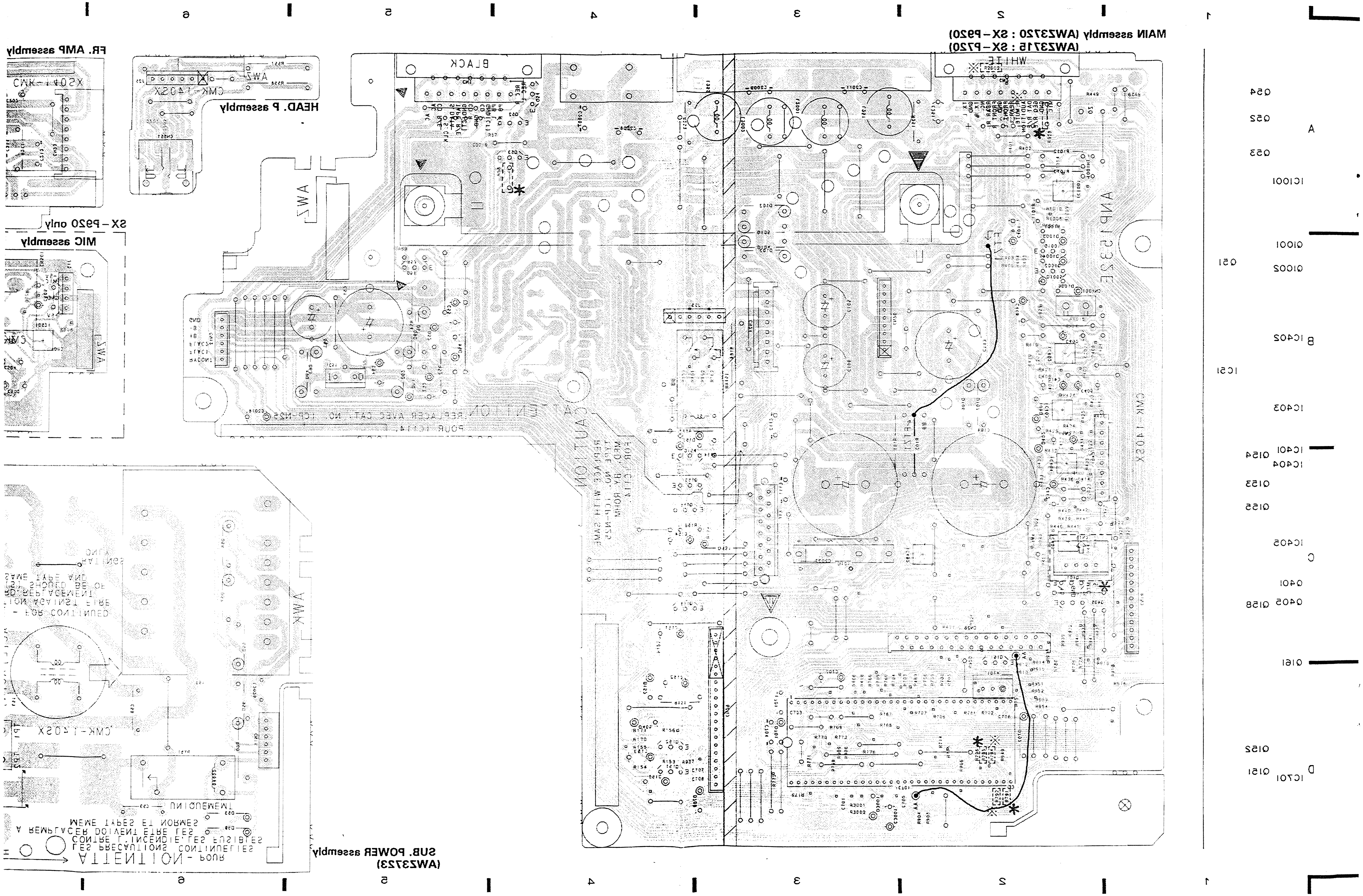
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.


FR. AMP assembly (AWZ3735 : SX-P920)(AWZ3731 : SX-P720)
HEAD. P assembly
SX-P920 only
MIC assembly
CONNECT assembly
SUB. POWER assembly (AWZ3723)
CMK-140SX
BLACK
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATING ONLY
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES UNIQUEMENT
CAUTION REPLACE WITH SAME TYPE NO. ICP-N25 FOR IC114
ATTENTION REPLACER AVEC CAT. NO. ICP-N25 POUR IC114
A B C D
9 8 7 6 5 4 3

✱ SX-P920 ONLY
※ SX-P720 ONLY

This P.C.B. connection diagram is viewed from the foil side.

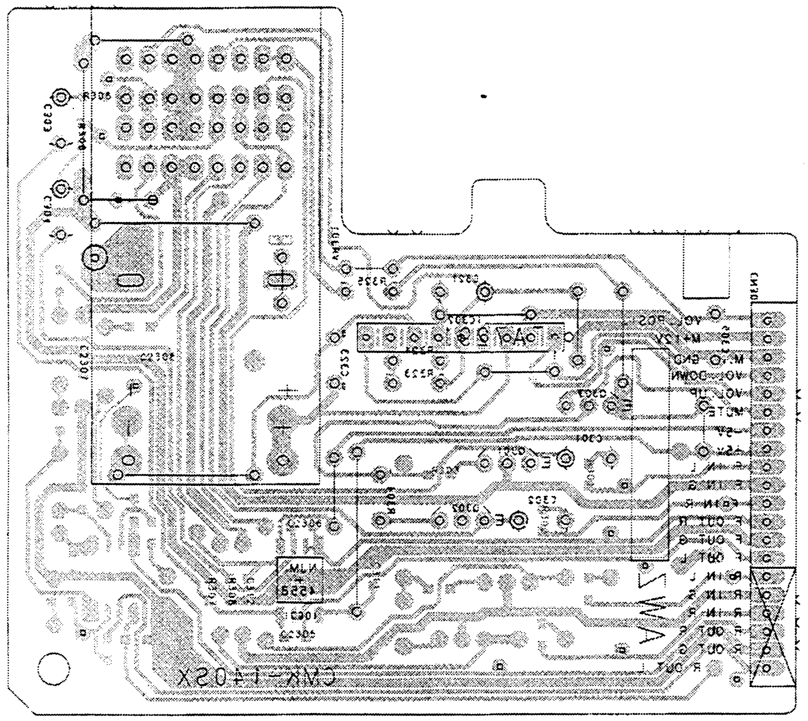


8.3.4 DISPLAY assembly, VR assembly AND REGULATOR assembly

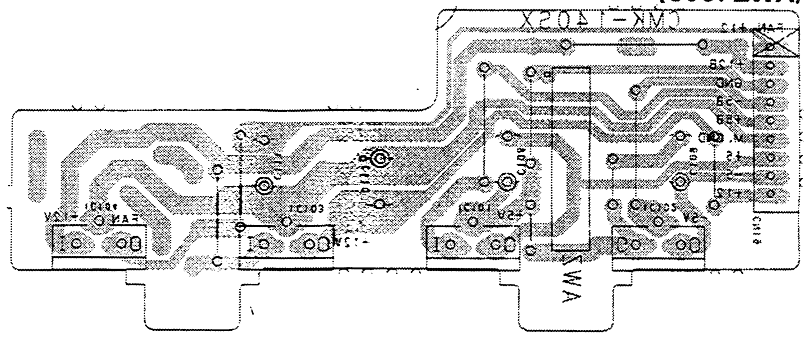
✱ SX-P920 ONLY
※ SX-P720 ONLY

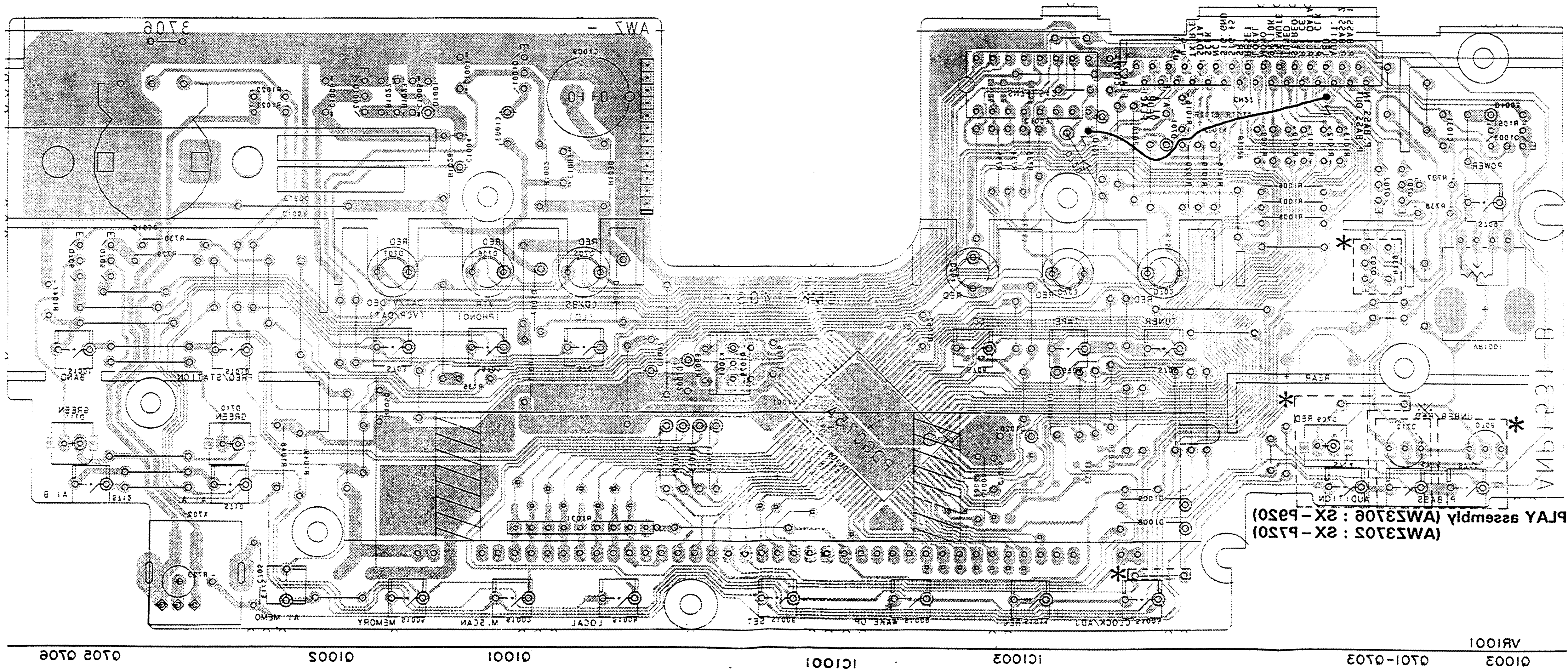
This P.C.B. connection diagram is viewed from the foil side.

VR assembly (AWZ3709)


CMK-140SX
AWZ
NJM 4558
VOL POS
M+12V
M.C GND
VOL DOWN
VOL UP
MOT
+5V
-5V
R IN
F OUT R
F OUT L
R OUT

REGULATOR assembly (AWZ4009)


CMK-140SX
AWZ
+12V
FAN
-12V
+5V
-5V
GND
+5
-5
M.GND


AWZ - 3706
ANP1651-B
RED
GREEN
CATV/VIDEO
VCR/DAT
V/R
PHONO
CD
LD
TUNER
TAPE
REAR
AUDITION
BAND
FREQ/STATION
POWER
AT MEMO
MEMORY
M.SCAN
LOCAL
SET
WAKE UP
CLOCK/ADJ
0705 0706
Q1002
Q1001
IC1001
IC1003
Q701-Q703
Q1003
VR1001

DISPLAY assembly (AWZ3706 : SX-P920)
(AWZ3702 : SX-P720)

This P. C. B connection diagram is viewed from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E 0504	E or E	Transistor
C215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarity)
C518		Capacitor (Non-polarity)

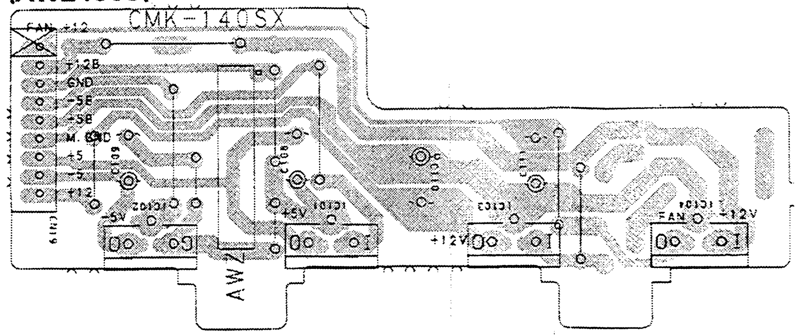
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

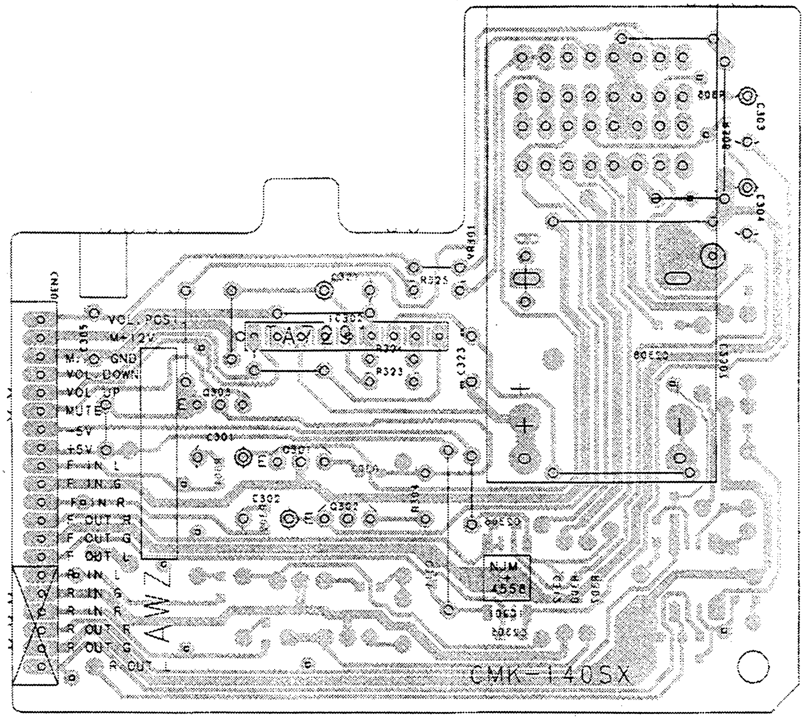
3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side
5. The transistor terminal to which E is affixed shows the emitter.

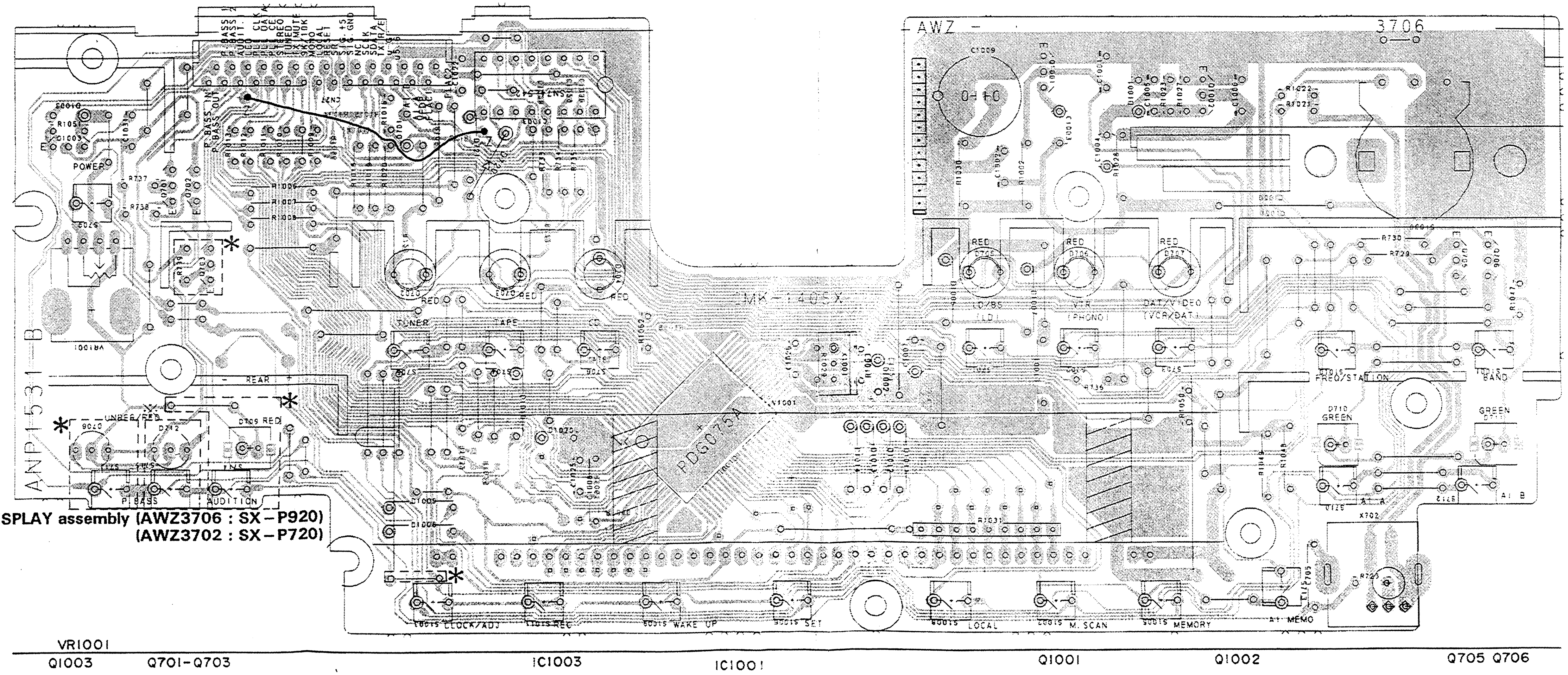
✱ SX−P920 ONLY
※ SX−P720 ONLY

REGULATOR assembly
(AWZ4009)

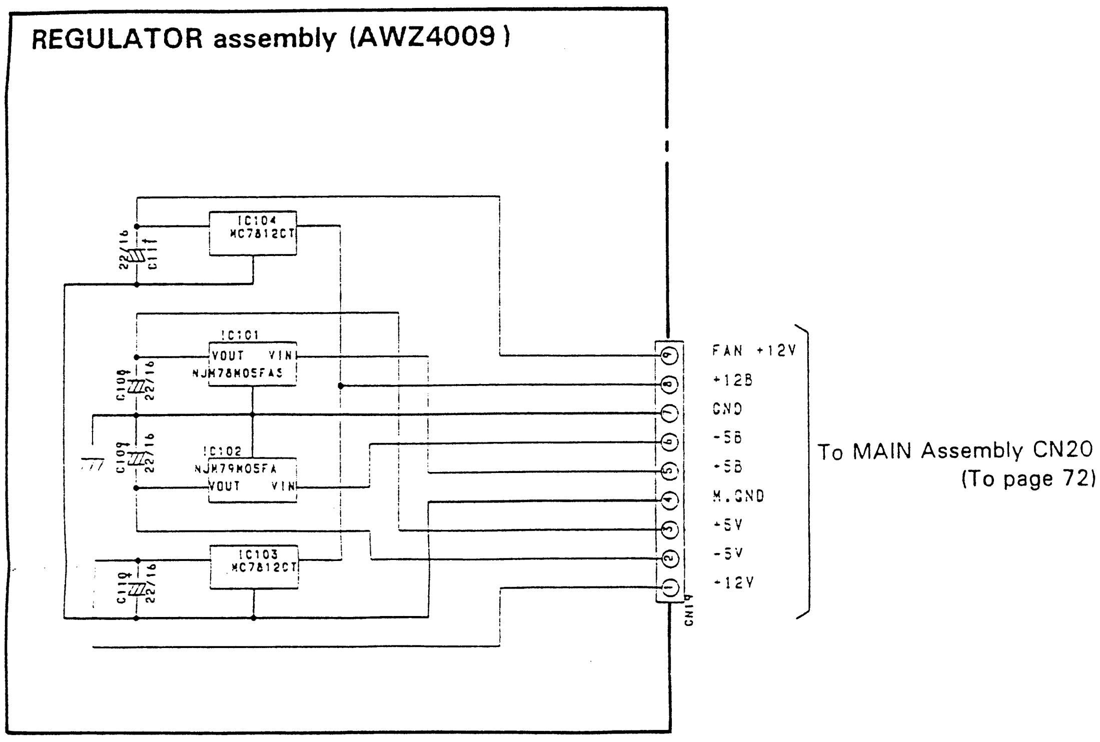

CMK-140SX
FAN
+12
+12B
GND
−5B
+5B
M.GND
+5
+12
−5V
+5V
+12V
−12V
AWZ

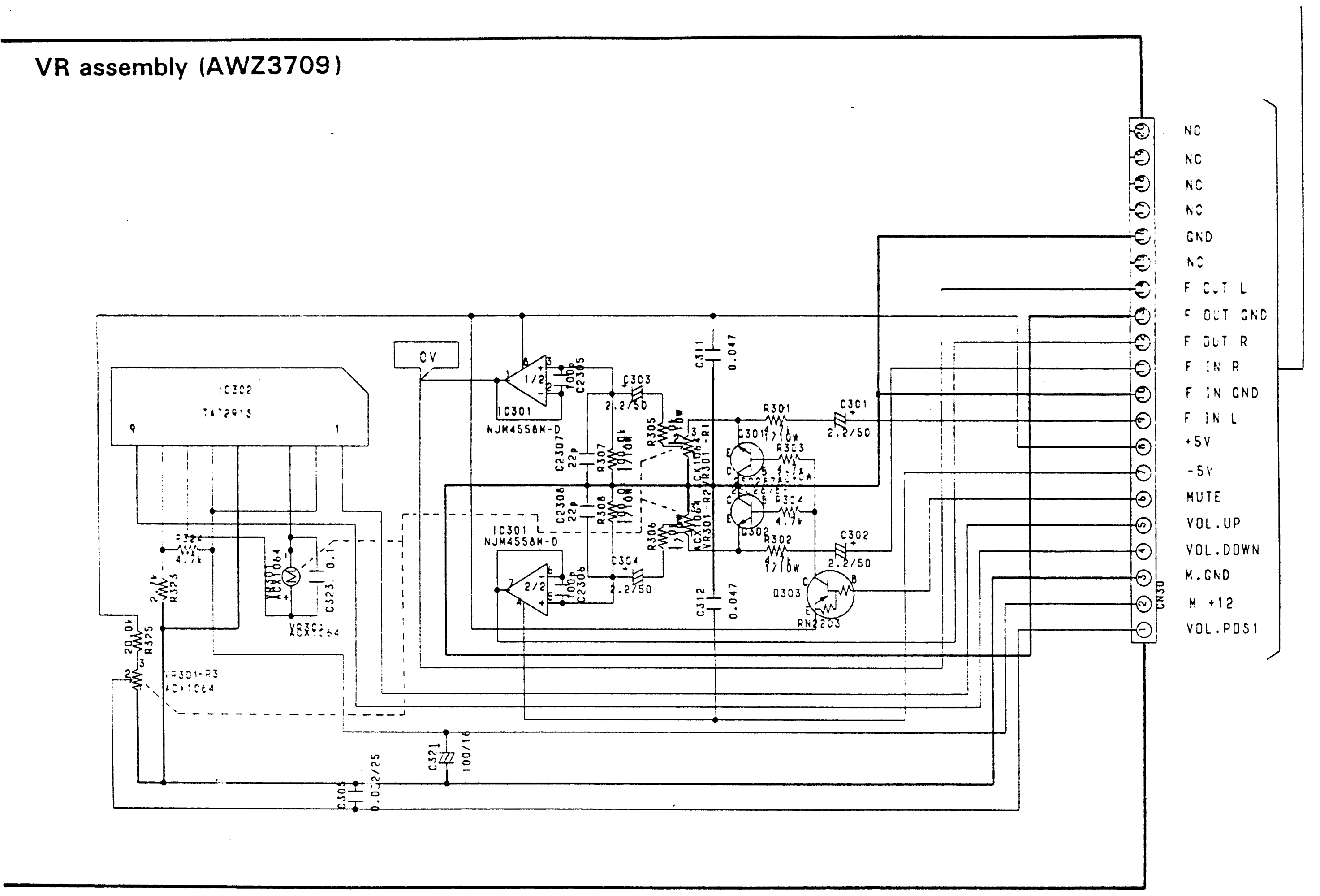
VR assembly
(AWZ3709)


VOL.POS
M+12V
M.GND
VOL.DOWN
VOL.UP
MUTE
−5V
+5V
F.IN.L
F.IN.G
F.IN.R
F.OUT.R
F.OUT.G
F.OBT.L
R.IN.L
R.IN.G
R.IN.R
R.OUT.R
R.OUT.G
R.OUT
NJM 4556
AWZ
CMK-140SX

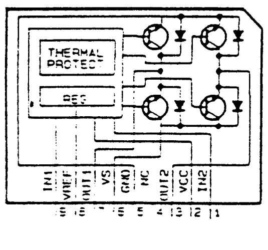

AWZ
3706
ANP1531-B
POWER
VR1001
REAR
UNBE/RED
RED
TUNER
TAPE
LD/BS (LD)
VCR (PHONO)
DAT/VIDEO (VCR/DAT)
FREQ/STATION
BAND
GREEN
P.BASS
AUDITION
PDG075A
MK-140SX
CLOCK/ADJ
REC
WAKE UP
SET
LOCAL
M.SCAN
MEMORY
MEMO
VR1001
Q1003
Q701-Q703
IC1003
IC1001
Q1001
Q1002
Q705 Q706

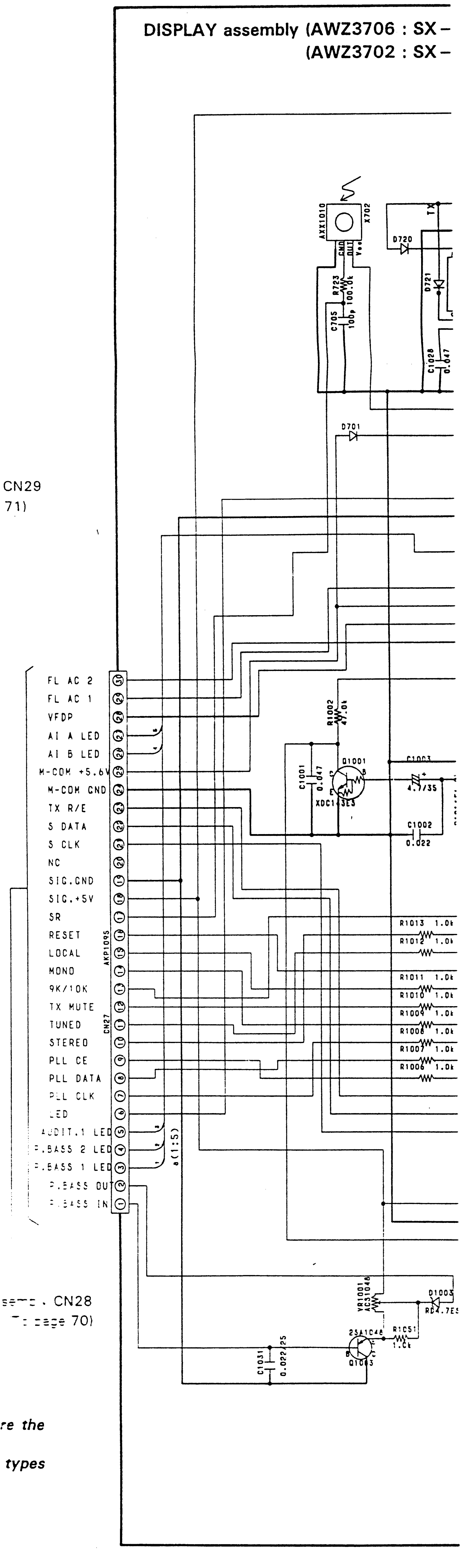
DISPLAY assembly (AWZ3706 : SX−P920)
(AWZ3702 : SX−P720)


REGULATOR assembly (AWZ4009)
IC104 MC7812CT
IC101 NJM78M05FA
VOUT VIN
IC102 NJM79M05FA
IC103 MC7812CT
C108 22/16
C109 22/16
C110 22/16
C111 22/16
CN14
FAN +12V
+12B
GND
-5B
+5B
M.GND
+5V
-5V
+12V
To MAIN Assembly CN20
(To page 72)


To MAIN Assembly CN29
(To page 71)
VR assembly (AWZ3709)
IC302 TA7291S
CV
IC301 NJM4558M-D
IC301 NJM4558M-D
1/2
2/2
C2305
C2306
C2307 22p
C2308 22p
C303 2.2/50
C304 2.2/50
C311 0.047
C312 0.047
C301 2.2/50
C302 2.2/50
R301
R302
R303
R304 4.7k
R305
R306
R307
R308
Q301
Q302
Q303 RN2203
VR301-R1
VR301-R2
VR302 XCX1064
C323 0.1
R324 4.7k
R325
C305 0.022/25
C321 100/16
VR301-R3 XCX1064
CN30
NC
NC
NC
NC
GND
NC
F OUT L
F OUT GND
F OUT R
F IN R
F IN GND
F IN L
+5V
-5V
MUTE
VOL.UP
VOL.DOWN
M.GND
M +12
VOL.POSI

IC302 TA7291S


THERMAL PROTECT
REG
IN1
VREF
RRIT1
VS
GND
NC
RRIT2
VCC
IN2

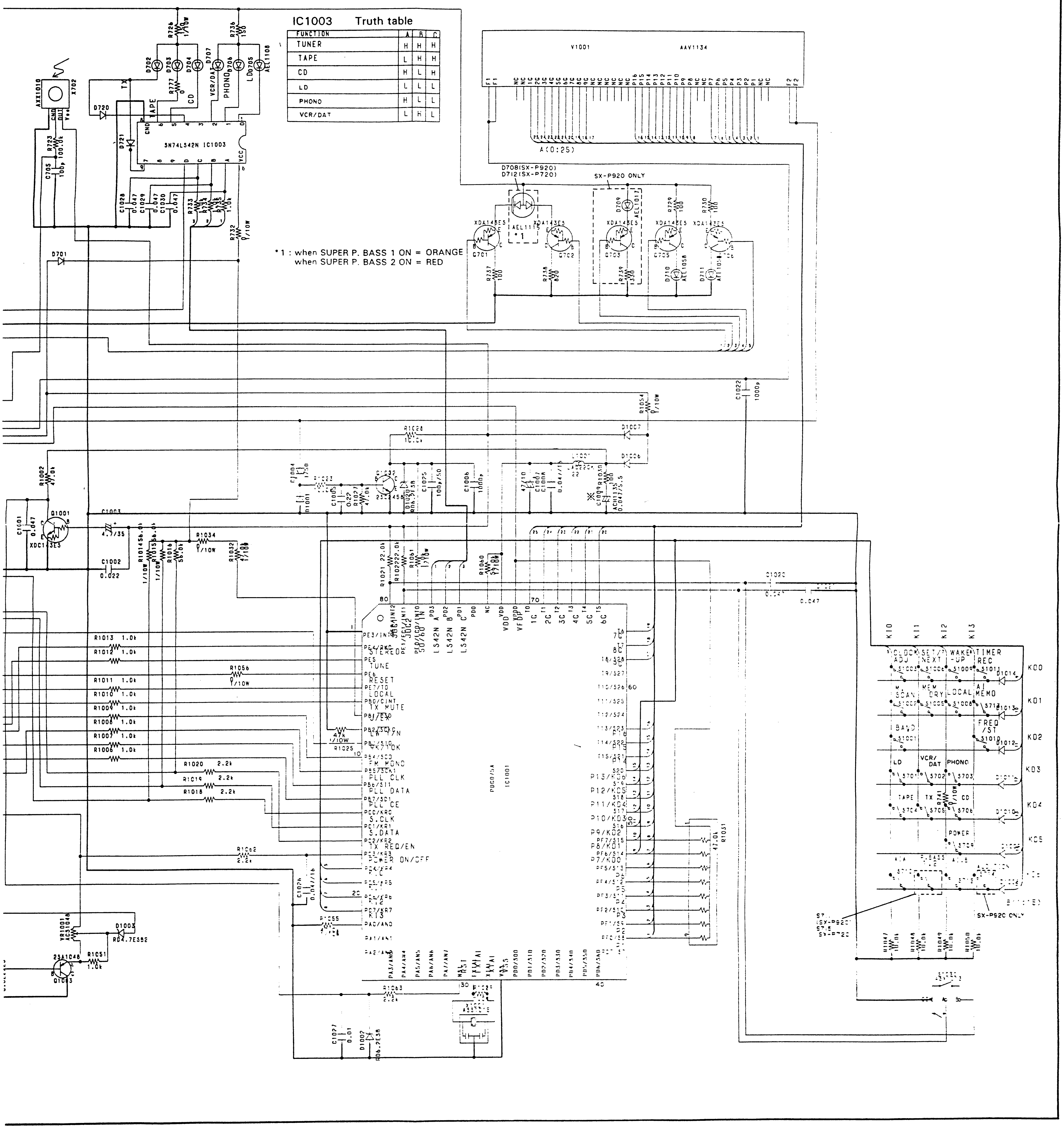

DISPLAY assembly (AWZ3706 : SX-
(AWZ3702 : SX-
AXX1010
X702
D720
D721
R723 100.0k
C705 100p
C1028 0.047
D701
R1002 47.0k
C1001 0.047
Q1001
XDC1-3E3
C1003 4.7/35
C1002 0.022
CN27
AKP1095
FL AC 2
FL AC 1
VFDP
AI A LED
AI B LED
M-COM +5.6V
M-COM GND
TX R/E
S DATA
S CLK
NC
SIG.GND
SIG.+5V
SR
RESET
LOCAL
MONO
9K/10K
TX MUTE
TUNED
STEREO
PLL CE
PLL DATA
PLL CLK
LED
AUDIT.1 LED
P.BASS 2 LED
P.BASS 1 LED
P.BASS OUT
P.BASS IN
R1013 1.0k
R1012 1.0k
R1011 1.0k
R1010 1.0k
R1009 1.0k
R1008 1.0k
R1007 1.0k
R1006 1.0k
VR1001 ACS1046
D1003
R1051 1.0k
2SA1048
Q1003
C1031 0.022/25
To MAIN Assembly CN28
(To page 70)

NOTE :

The VR assemblies of SX-P920 and SX-P720 types are the same.

The REGULATOR assemblies of SX-P920 and SX-P720 types are the same.

bly (AWZ3706 : SX－P920)
(AWZ3702 : SX－P720)


IC1003
SN74LS42N IC1003
V1001 AAV1134
A(0:25)
D708(SX-P920)
D712(SX-P720)
SX-P920 ONLY
AEL1115
XDA143ES
Q701
Q702
Q703
Q705
Q706
D702
D703
D704
D707
D706
D705
AEL1108
D709
AEL1011
D710
AEL1058
D711
TAPE
CD
VCR/DAT
PHONO
LD
TX
AXX1010
X702
D720
D721
D701
Q1001
XDC143ES
Q1003
2SA1048
VR1001
D1003
D1002
D1006
D1007
C1022 1000p
R1054
PD6015A
IC1001
STEREO
TUNE
RESET
LOCAL
TX MUTE
LW Y/N
FM MONO
PLL CLK
PLL DATA
PLL CE
S.CLK
S.DATA
TX REQ/EN
POWER ON/OFF
LS42N A
LS42N B
LS42N C
K10
K11
K12
K13
CLOCK ADJ
SET/ NEXT
WAKE-UP
TIMER REC
SCAN
MEM CRY
LOCAL
AI MEMO
BAND
FREQ /ST
LD
VCR/ DAT
PHONO
TAPE
TX
CD
POWER
KD0
KD1
KD2
KD3
KD4
KD5
S7 (SX-P920)
SX-P920 ONLY

IC1003 Truth table

FUNCTION	A	B	C
TUNER	H	H	H
TAPE	L	H	H
CD	H	L	H
LD	L	L	L
PHONO	H	L	L
VCR/DAT	L	H	L

*1 : when SUPER P. BASS 1 ON = ORANGE
when SUPER P. BASS 2 ON = RED

9 PANEL FACILITIES

9.1 REAR PANEL FACILITIES

STEREO RECEIVER : SX-P920/SX-P720

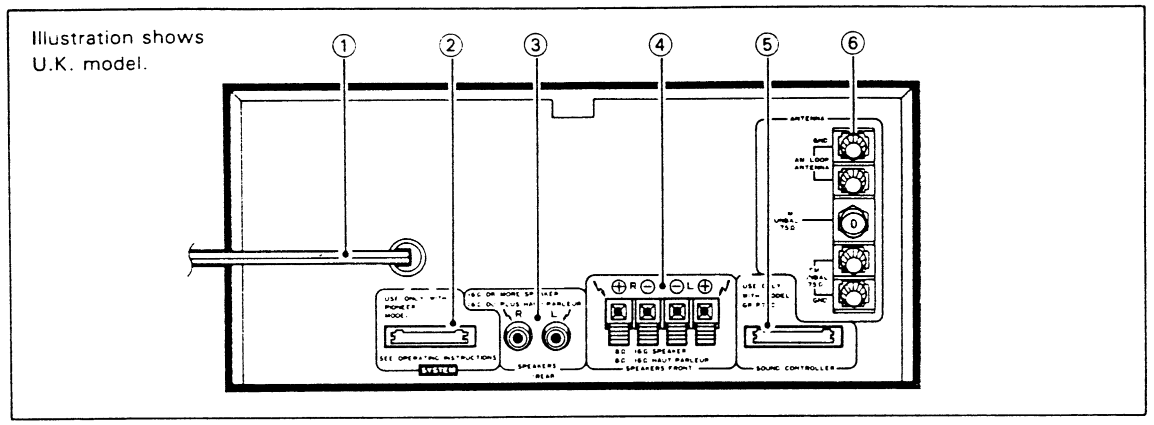


Illustration shows U.K. model.

① **Power cord**
Connect this to the AC wall socket.

② **SYSTEM jack**
Connect the system cable here.

③ **SPEAKERS (REAR) jack**
Connect the surround speaker systems.

NOTE:
Connect a speaker system with a nominal impedance of 16Ω or more.

④ **SPEAKERS (FRONT) terminals**
L: Connect the left speaker system as seen from the listening position.
R: Connect the right speaker system as seen from the listening position.

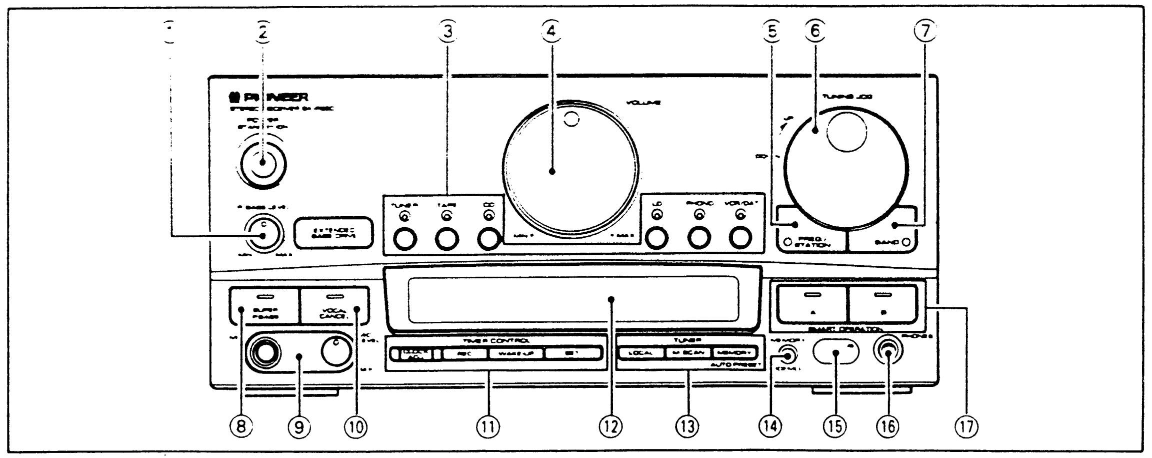
NOTE:
Connect a speaker system with a nominal impedance ranging from 8Ω to 16Ω.

⑤ **SOUND PROCESSOR jack SX-P920**
SOUND CONTROLLER jack SX-P720
Connect the SOUND FIELD PROCESSOR (or SOUND IMAGE CONTROLLER) system cable here.

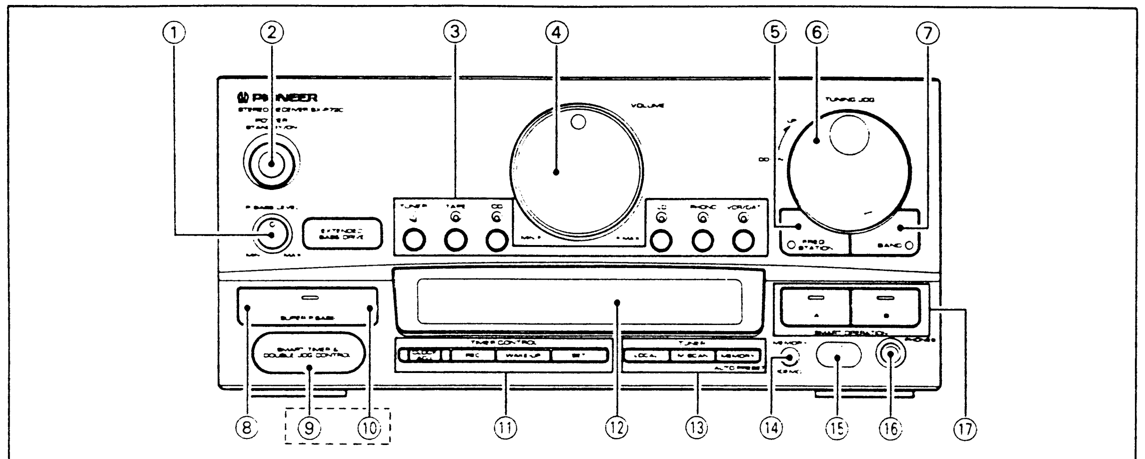
⑥ **FM/AM ANTENNA terminals**
Antennas must be connected to these terminals: otherwise station reception is not possible. See page 11 for details on ANTENNA CONNECTIONS.

9.2 FRONT PANEL FACILITIES

STEREO RECEIVER : SX-P920



STEREO RECEIVER : SX-P720



- Multi-voltage models include the ⑨ and ⑩ shown on the SX-P920.

① **P.BASS LEVEL control**
P.BASS stands for Proper Bass Active Supply System, and refers to the built-in system for emphasizing low sound ranges.
This unit is equipped with the Super P.BASS to allow you to select two kinds of bass reproduction, depending on the kind of music source and your own preference. This knob can be used to adjust the super P.BASS level when the SUPER P.BASS button is set to ON.

② **POWER STANDBY/ON switch**
This is the switch for electric power.

ON:	When set to the ON position, power is supplied and the unit becomes operational.
STANDBY:	When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness. The receiver section display indicates only the time.

③ **Input selectors**
(TUNER, TAPE, CD, LD, PHONO, VCR/DAT)

④ **VOLUME control**

⑤ **FREQ./STATION button**
Use to select the display mode (frequency mode or station mode).
- **Frequency mode:** Display indicates the frequency of the tuned station, and the current time.
- **Station mode:** Display indicates the frequency of the tuned station together with the recorded station number assigned to that station.

⑥ **TUNING JOG control**
Use to set the time and tune the receiver's reception frequency.

⑦ **BAND button**
Use to select FM or AM bands.

⑧ **SUPER P.BASS button**
Use this button to select from among the two types of super P.BASS effect desired, then use the P.BASS level control to adjust the level as desired.

⑨ **MIC (microphone) jack and MIC LEVEL (microphone level) control [on SX-P920 and SX-P720 (multi-voltage model) only]**

⑩ **VOCAL CANCEL button [on SX-P920 and SX-P720 (multi-voltage model) only]**
Set to ON to use the vocal cancel function.

⑪ **TIMER CONTROL buttons**
(CLOCK ADJ., REC, WAKE-UP, SET)
Use these buttons to set the current clock time and the timer for timed recording and playback.

⑫ Display

⑬ **TUNER buttons**
- **LOCAL button:** Set to ON when receiving very nearby stations (the strong signals may otherwise produce high levels of static).
- **M.SCAN (memory scan) button:** Automatically scans (for about five seconds each) each of the stations stored in the station memory.
- **MEMORY button:** Use to save broadcasting stations in the station memory.

⑭ **MEMORY (DEMO) button**
Use in conjunction with the SMART operation memory. If this button is pressed when the unit's power is STANDBY, the DEMO mode will be selected; the power will turn on and the unit's various features will be displayed.

⑮ **Remote sensor window**

⑯ **Headphone jack (PHONES)**

⑰ **SMART OPERATION A/B buttons**
These buttons are used with the SMART operation mode function to store your favorite listening modes, thus allowing you to select them at a single touch.

10. SPE

10.1 SX–

STEREO RE

Amplifier Sec
<For Multi-v
Continuously
per channel,
17,000 Hertz
monic distort

* Measured
sion's Trac
Claims for

Continuous po
U.K., Europ

Continuous po
U.K., Europ

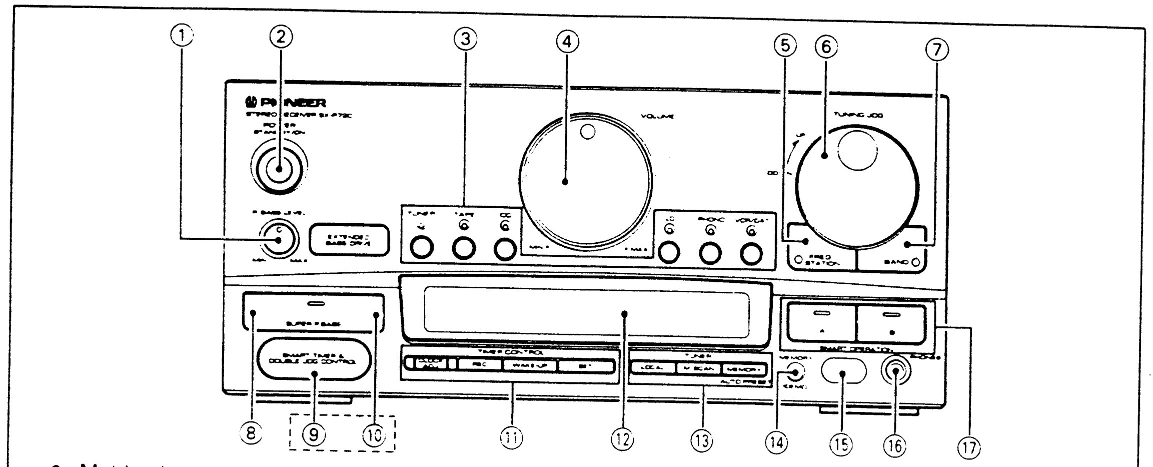
Multi-voltag
Music power (
U.K., Europ
Multi-voltag
Peak music po
(Multi-voltage
Total harmonic
1 kHz, 25 W,

Electrical Sec
Power requiren
U.K. models
European m
Multi-voltag

Power consum
U.K. models
European m
Multi-voltag
External dimen

10
Weight ....
** Measured

STEREO RECEIVER : SX – P720



- Multi-voltage models include the ⑨ and ⑩ shown on the SX-P920.

① P.BASS LEVEL control

P.BASS stands for Proper Bass Active Supply System, and refers to the built-in system for emphasizing low sound ranges.

This unit is equipped with the Super P.BASS to allow you to select two kinds of bass reproduction, depending on the kind of music source and your own preference. This knob can be used to adjust the super P.BASS level when the SUPER P.BASS button is set to ON.

② POWER STANDBY/ON switch

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.
The receiver section display indicates only the time.

③ Input selectors (TUNER, TAPE, CD, LD, PHONO, VCR/DAT)

④ VOLUME control

⑤ FREQ./STATION button

Use to select the display mode (frequency mode or station mode).

- **Frequency mode:** Display indicates the frequency of the tuned station, and the current time.
- **Station mode:** Display indicates the frequency of the tuned station together with the recorded station number assigned to that station.

⑥ TUNING JOG control

Use to set the time and tune the receiver's reception frequency.

⑦ BAND button

Use to select FM or AM bands.

⑧ SUPER P.BASS button

Use this button to select from among the two types of super P.BASS effect desired, then use the P.BASS level control to adjust the level as desired.

⑨ MIC (microphone) jack and MIC LEVEL (microphone level) control [on SX-P920 and SX-P720 (multi-voltage model) only]

⑩ VOCAL CANCEL button [on SX-P920 and SX-P720 (multi-voltage model) only]

Set to ON to use the vocal cancel function.

⑪ TIMER CONTROL buttons (CLOCK ADJ., REC, WAKE-UP, SET)

Use these buttons to set the current clock time and the timer for timed recording and playback.

⑫ Display

⑬ TUNER buttons

- **LOCAL button:** Set to ON when receiving very nearby stations (the strong signals may otherwise produce high levels of static).
- **M.SCAN (memory scan) button:** Automatically scans (for about five seconds each) each of the stations stored in the station memory.
- **MEMORY button:** Use to save broadcasting stations in the station memory.

⑭ MEMORY (DEMO) button

Use in conjunction with the SMART operation memory. If this button is pressed when the unit's power is STANDBY, the DEMO mode will be selected; the power will turn on and the unit's various features will be displayed.

⑮ Remote sensor window

⑯ Headphone jack (PHONES)

⑰ SMART OPERATION A/B buttons

These buttons are used with the SMART operation mode function to store your favorite listening modes, thus allowing you to select them at a single touch.

10. SPECIFICATIONS

10.1 SX – P920

STEREO RECEIVER: SX-P920

Amplifier Section

<For Multi-voltage models>

Continuously Average Power Output is 50 Watts* per channel, min., at 8 ohms from 40 Hertz to 17,000 Hertz, with no more than 0.9% total harmonic distortion

* Measured pursuant to the Federal Trade Commission's Trade Regulation rules on Power Output Claims for Amplifiers

Continuous power output (DIN)
U.K., European models .... 50 W + 50 W
(1 kHz, T.H.D 1%. 8 ohms)
Continuous power output (RMS)
U.K., European models .... 60 W + 60 W
(1 kHz, T.H.D 5%, 8 ohms)
Multi-voltage models .... 70 W + 70 W
Music power (DIN) (1 kHz, T.H.D 1%, 8 ohms)
U.K., European models .... 85 W + 85 W
Multi-voltage models .... 95 W + 95 W
Peak music power
(Multi-voltage models only) .... 465 W
Total harmonic distortion,
1 kHz, 25 W, 8 ohms 0.2%**

Electrical Section, Other

Power requirements
U.K. models .... AC 240 V, 50/60 Hz
European models .... AC 220-230 V, 50/60 Hz
Multi-voltage models .... AC 110/120–127/
220/240 V (switchable), 50/60 Hz
Power consumption
U.K. models .... 300 W
European models .... 290 W
Multi-voltage models .... 325 W
External dimensions ....
260 (W) × 117 (H) × 262 (D) mm
10-1/4 (W) × 4-5/8 (H) × 10-5/16 (D) in
Weight .... 5.4 kg (11 lb 15 oz.)

** Measured with audio spectrum analyzer.

FM Tuner Section

Reception frequency range .... 87.5–108.0 MHz
Usable Sensitivity .... MONO: 12.8 dBf, IHF
(1.2 μV/75 ohms)
Sensitivity (DIN)
MONO (S/N 26 dB) .... 1 μV/75 ohms
STEREO (S/N 46 dB) .... 50 μV/75 ohms
Signal-to-Noise Ratio
(IHF, 85 dBf Input) .... MONO: 77 dB
Signal-to-Noise Ratio (DIN) .... MONO: 66 dB
STEREO: 60 dB
Distortion .... STEREO: 0.5%, 1 kHz
Antenna input .... 75 ohms unbalanced

AM (MW) Tuner Section

Frequency range (For U.K., European and multi-voltage models) .... 531 kHz to 1,602 kHz
(For U.S., Canadian and
multi-voltage models) .... 530 kHz to 1,700 kHz
Sensitivity (IHF, Loop antenna) .... 350 μV/m
Antenna .... Loop Antenna

LW Tuner Section

(For LW equipped models only)

Frequency range .... 153 kHz to 281 kHz
Sensitivity (IHF, Loop Antenna) .... 1,500 μV/m
Antenna .... Loop Antenna

10.2 SX – P720

STEREO RECEIVER: SX-P720

Amplifier Section

<For U.S., Canadian and Multi-voltage models> Continuously Average Power Output is 40 Watts* per channel, min., at 8 ohms from 40 Hertz to 20,000 Hertz, with no more than 0.9% total harmonic distortion

> * Measured pursuant to the Federal Trade Commission's Trade Regulation rules on Power Output Claims for Amplifiers

Continuous power output (DIN)	
U.K., European models	40 W +40 W (1 kHz, T.H.D 1%, 8 ohms)
Continuous power output (RMS)	
U.K., European models	50 W +50 W (1 kHz, T.H.D 5%, 8 ohms)
U.S., Canadian and Multi-voltage models	57 W +57 W
Music power (DIN) (1 kHz, T.H.D 1%, 8 ohms)	
U.K., European models	65 W +65 W
Multi-voltage models	75 W +75 W
Peak music power (Multi-voltage models only)	375 W
Total harmonic distortion, 1 kHz, 20 W, 8 ohms	0.2%**

Electrical Section, Other

Power requirements	
U.K. models	AC 240 V, 50/60 Hz
European models	AC 220-230 V, 50/60 Hz
U.S., Canadian models	AC 120 V, 60 Hz
Multi-voltage models	AC 110/120–127/220/240 V (switchable), 50/60 Hz
Power consumption	
U.K. models	250 W
European models	240 W
U.S., Canadian models	125 W
Multi-voltage models	265 W
External dimensions	260 (W) × 117 (H) × 262 (D) mm 10-1/4 (W) × 4-5/8 (H) × 10-5/16 (D) in
Weight	5.2 kg (11 lb 7 oz.)

** Measured with audio spectrum analyzer.

FM Tuner Section

Reception frequency range	87.5–108.0 MHz
Usable Sensitivity	MONO: 12.8 dBf, IHF (1.2 μV/75 ohms)
Sensitivity (DIN)	
MONO (S/N 26 dB)	1 μV/75 ohms
STEREO (S/N 46 dB)	50 μV/75 ohms
Signal-to-Noise Ratio (IHF, 85 dBf Input)	MONO: 77 dB
Signal-to-Noise Ratio (DIN)	MONO: 66 dB STEREO: 60 dB
Distortion	STEREO: 0.5%, 1 kHz
Antenna input	75 ohms unbalanced

AM (MW) Tuner Section

Frequency range (For U.K., European and multi-voltage models)	531 kHz to 1,602 kHz
(For U.S., Canadian and multi-voltage models)	530 kHz to 1,700 kHz
Sensitivity (IHF, Loop antenna)	350 μV/m
Antenna	Loop Antenna

LW Tuner Section
(For LW equipped models only)

Frequency range	153 kHz to 281 kHz
Sensitivity (IHF, Loop Antenna)	1,500 μV/m
Antenna	Loop Antenna